

**HARDING TOWNSHIP BOARD OF ADJUSTMENT MINUTES
REGULAR MEETING
JANUARY 21, 2021
7:30 PM**

CALL TO ORDER AND STATEMENT OF COMPLIANCE

The Board Attorney, Gary Hall, called the regular meeting of the Board of Adjustment to order at 7:30 and announced that adequate notice of the meeting had been made in accordance with the New Jersey State Open Public Meetings Act and State Executive Order 103.

REORGANIZATION

Mr. Hall noted at the Township Committee meeting held on January 4, 2021 the following appointments were made to the Board of Adjustment:

Aric Rosenbaum	Regular Member	4 year term expiring, December 31, 2024
Donato Maselli	Regular Member	4 year term expiring, December 31, 2024
Elizabeth Sovolos	Regular Member	4 year unexpired term, December 31, 2022
Michael Cammarata	Alternate #1	2 year unexpired term, December 31, 2021
George Boyan	Alternate # 2	2 year term expiring December 31, 2022

Mr. Hall swore in the appointees.

ROLL

Ms. Taglairino called the roll. It went as follows:

Mr. Cammarata	Present	Mr. Newlin	Present	Mr. Maselli	Present
Mr. Addonizio	Present	Ms. Sovolos	Present	Mr. Boyan	Present
Mr. Rosenbaum	Present	Mr. Symonds	Present	Mr. Flanagan	Present

Board Attorney, Mr. Hall, Board Engineer, Mr. Fox, Board Planner, Ms. Mertz and Board Secretary, Ms. Taglairino were also present.

ELECTION OF CHAIRPERSON

Mr. Hall opened the nominations for Chairperson. Mr. Newlin nominated Mr. Flanagan. Mr. Maselli seconded the nomination. There were no more nominations. Mr. Hall closed the nominations. On a voice vote all were in favor of electing Mr. Flanagan as Chair.

Mr. Hall turned the meeting over to Mr. Flanagan.

ELECTION OF A VICE-CHAIR

Mr. Flanagan nominated Mr. Newlin as Vice-Chair. Mr. Maselli seconded the nomination. There were no other nominations. On a voice vote, all were in favor of electing Mr. Newlin as Vice-chair.

REORGANIZATION RESOLUTIONS

Mr. Flanagan made a motion to approve Resolution BOA #01-2021 for the Appointment of Professionals. It was seconded by Mr. Newlin. On a voice vote all were in favor of the appointment of professionals.

Mr. Hall swore in Mr. Fox and Ms. Mertz

Mr. Flanagan made a motion to approve Resolution BOA #02-2021 for the 2021 meeting dates. It was seconded by Ms. Newlin. On a voice vote, all were in favor approving the meeting dates for 2021.

Mr. Symonds made a motion to approve Resolution BOA #03-2021 for the Do Not Exceed Limits for professionals. It was seconded by Mr. Flanagan. On a voice vote, all were in favor of approving the resolution.

REGULAR MEETING

MINUTES

Mr. Newlin made a motion to approve the November 19, 2020 minutes as written. It was seconded by Mr. Flanagan. On a voice vote all eligible members voted to approve the November 19, 2020 minutes.

Mr. Newlin made a motion to approve the December 17, 2020 minutes as written. It was seconded by Ms. Sovolos. On a voice vote all eligible members voted to approve the December 17, 2020 minutes.

RESOLUTION

Application BOA# 03-20

James Carifa and Sara Conine

7 Lees Hill Road B17/L55, R-1 & R-2 Zones

Mr. Maselli made a motion to adopt Resolution BOA# 03-20 Conine & Carifa. Mr. Newlin seconded the motion. A roll call vote went as follows:

For: Maselli, Addonizio, Symonds, Newlin, Sovolos, and Flanagan.

Against: None.

NEW BUSINESS

Application BOA# 13-20

Gregory & Christine Ihnken

Tempe Wick Road, B34/L3, RR-Zone

Applicant is requesting variance relief for a side setback, building area per N.J.S.A. 40:55D-70(c) and relief for an accessory residence per N.J.S.A. 40:55D-70(d).

Presenting:

David Scalera, Attorney

Richard Schommer, Engineer

Art Palumbo, Architect

Gregory and Christine Ihnken, Owners

Mr. Hall swore everyone in for testimony.

- Mr. Scalera presented proposed plans for a barn renovation and addition for an existing barn.
- Mr. Scalera noted that the applicant was seeking an accessory dwelling residence on the undersized lot. The lot is 5.094 acres in the RR Zone. He noted that the applicant is also seeking a setback variance for the barn as well.
- Mr. Schommer presented Exhibit A-1, a colorized rendering of the existing conditions on the lot with the proposed changes highlighted.
- The property is a contributing property in the Historic District of Tempe Wick.
- Mr. Flanagan stated that his concern is density on an under-sized lot.
- Mr. Newlin asked if the septic would support such a project. Mr. Schommer stated that the septic would support the additional bedroom.
- Mr. Schommer opined on the positive criteria for the application as an adaptive re-use of a structure that would promote aging in place.

The Board requested a Site Inspection of the property. It was set for January 30, 2021 at 9:00a.m. with an inclement weather date of February 6, 2021 at 9:00a.m.

OLD BUSINESS

Application BOA# 17-18

New York SMSA Limited Partnership d/b/a Verizon Wireless
8 Millbrook Road, B17/L1, PL Zone

Applicant requesting variance relief for use, per NJSA 40:55D-70(d) for a cell tower.

Presenting:

Richard Schneider, Attorney

Frances Boshulte, RF Manager

Dr. Eisenstein, RF Specialist

Mr. Mlenak is acting Board Attorney for this application.

Robert Simon is an objecting attorney for this application.

There was a break hearing this application from 9:58 to 10:08.

Ms. Taglairino called the roll for the Board Members after the break and the following were present:

Mr. Boyan, Mr. Newlin, Mr. Flanagan, Mr. Maselli, Mr. Rosenbaum, Mr. Addonizio
Mr. Symonds, Mr. Cammarata, and Ms. Sovolos.

The application is carried to the February 18, 2021 meeting with no further notice.

The Board voted to agree with the Verizon Attorney, Mr. Schneider to extend the Shot Clock until the February 18, 2021 meeting.

A transcript of the testimony is appended to the minutes.

OTHER BUSINESS

None

ADJOURNMENT

Mr. Flanagan adjourned the meeting at 11:03

Lori Taglairino

Respectfully submitted by Lori Taglairino, Board of Adjustment Secretary

Reorganization Resolutions

RESOLUTION BOA #01-2021 TOWNSHIP OF HARDING BOARD OF ADJUSTMENT JANUARY 21, 2021

APPOINTMENT OF PROFESSIONALS TO SERVE THE BOARD OF ADJUSTMENT FOR 2021

WHEREAS, the Board of Adjustment of the Township of Harding has need for professional legal, planning and engineering consultant services; and

WHEREAS, funds are available for this purpose; and

WHEREAS, the Local Public Contracts Law (N.J.S.A. 40A:11-1 et seq.) requires that the resolution authorizing the retention of certain professional services without competitive bidding must be publicly advertised:

NOW, THEREFORE, BE IT RESOLVED by the Board of Adjustment of the Township of Harding in the County of Morris that the following appointments be made for the year 2021:

1. Gary Hall, Esq., of the firm of McCarter and English, Attorney as Counsel;
 2. Paul Fox, of the firm of Apgar Associates, as Engineering Consultant; and
 3. McKinley Mertz of the firm Heyer Gruel and Associates, as Planner
- a) Said appointments are made without competitive bidding as professional services under provisions of the Local Public Contracts Law because lawyers, engineers and professional planners are recognized professionals licensed and regulated by law.
 - b) A copy of this resolution shall be published in the Observer-Tribune as required by law.

I hereby certify this is a true copy of a Resolution approved by the Board of Adjustment of the Township of Harding at a meeting held on January 21, 2021.

**HARDING TOWNSHIP BOARD OF ADJUSTMENT
RESOLUTION BOA 02-2021
JANUARY 21, 2021
REGULAR MEETING SCHEDULE FOR FEBRUARY 2021 THROUGH JANUARY 2022**

WHEREAS, the "Open Public Meeting Act" R.S. 10:4-6 and following, requires that public bodies provide adequate notice of meetings; and

WHEREAS, that due to the current state of emergency and public health emergency declared by Governor Phil Murphy pursuant to Executive Order No. 103 and in an effort to prevent further spread of COVID-19, Board of Adjustment meetings will be held via Zoom in lieu of an in-person meetings until further notice. The public will be advised by publication and posting of a new notice in accordance with the procedures below when in person meetings are going to be resumed at Kirby Hall, 21 Blue Mill Road in New Vernon NJ. Members of the public can register to access the electronic meetings via registration links found in the Board of Adjustment agendas posted on the Township webpage at www.hardingnj.org. The remote meetings will be conducted consistent with the Harding Township Board of Adjustment Resolution BOA#07-2020 *Emergency Protocols, Procedures and Requirements for Public Participation in Remote Meetings*.

NOW, THEREFORE, BE IT RESOLVED by the Board of Adjustment of the Township of Harding, in the County of Morris, New Jersey, as follows:

1. From February 2021 through January 2022, meetings will be held by the Board of Adjustment to discuss or act upon public business at 7:30 p.m., prevailing time, on the following dates:

FEBRUARY 18, 2021

MARCH 18, 2021

APRIL 15, 2021

May 20, 2021

JUNE 17, 2021

JULY 16, 2021

AUGUST 19, 2021

SEPTEMBER 16, 2021

OCTOBER 21, 2021

NOVEMBER 18, 2021

DECEMBER 16, 2021

JANUARY 20, 2022

2. Certified copies of this Resolution shall be (a) mailed to the OBSERVER-TRIBUNE, (b) mailed to the DAILY RECORD, (c) filed with the Clerk of the Township of Harding, (d) posted on Township webpage and the bulletin board in the main hallway of the Township Hall and, (e) mailed to any person requesting notices of meeting of the Board of Adjustment pursuant to R.S. 10:4-19 who has paid \$15.00 for agendas and \$25.00 for agendas and minutes, which sum is hereby fixed to cover the costs of providing notice of all meetings of this body during 2021 and January 24, 2022. The foregoing shall be accomplished within seven (7) days of the adoption of this Resolution.

I hereby certify this is a true copy of a Resolution approved by the Board of Adjustment of the Township of Harding at a meeting held on January 21, 2021.

**RESOLUTION BOA 03-2021
HARDING TOWNSHIP BOARD OF ADJUSTMENT OF THE TOWNSHIP
JANUARY 21, 2021**

RESOLUTION TO PROVIDE PROFESSIONAL SERVICES DURING 2021

WHEREAS, the Board of Adjustment of the Township of Harding previously appointed professionals to provide legal services and engineering services via Resolution BOA 01-2021; and

WHEREAS, the Board of Adjustment has a need to award contract for the above-mentioned professionals; and

WHEREAS, Resolution BOA-03-2021 of the Board of Adjustment of the Township of Harding is providing for the award of contract to:

1. Gary Hall, Esq. of the firm McCarter and English, in an amount not to exceed \$11,000.00
2. Paul Fox, of the firm of Apgar Associates, as Engineering Consultant, in an amount not to exceed \$4,000.00 and
3. Mc Kinley Mertz of the firm Heyer Gruel and Associates, as Planner, in an amount not to exceed \$3,000.00 and

NOW THEREFORE, BE IT RESOLVED by the Board of Adjustment of the Township Of Harding in County of Morris that the following appointments be made for the year 2021:

1. Gary Hall, Esq. of the firm McCarter and English Associates and Paul Fox, of the firm of Apgar Associates, as Engineering Consultant and Mc Kinley Mertz of the firm Heyer Gruel and Associates, as Planner

2. Said appointments are made without competitive bidding as professional services under provisions of the Local Public Contracts Law because lawyers, planners and engineers are recognized professionals licensed and regulated by law;

3. A copy of this resolution shall be published in the Observer-Tribune as required by law.

Resolution adopted January 21, 2021 by the Harding Township Board of Adjustment.

**HARDING TOWNSHIP BOARD OF ADJUSTMENT
RESOLUTION
Sarah Conine & James Carifa - Application No. BOA 3-20
7 Lee's Hill Road - Block 17, Lot 55
Adopted January 21, 2021**

WHEREAS, Sarah Conine and James Carifa applied to the Harding Township Board of Adjustment for variances from Section 225-115(B) of the Land Use and Development Ordinance, which prohibits the enlargement of certain nonconforming structures, Section 225-126(C), which permits a maximum building area ratio of 3% for lots exceeding 2 acres in size located in the R-2 & R-1 Zones, and Section 225-126(F), which requires a minimum front setback of 50' in the R-2 Zone, to permit construction of a covered front porch addition and several rear additions, an upward expansion of the attic level and related improvements to the residence on property located in R-2 and R-1 Zones at 7 Lee's Hill Road and designated on the Township Tax Map as Block 17, Lot 55; and

WHEREAS, the Board of Adjustment conducted a public hearing on the application at virtual meetings using the Zoom platform on November 19, 2020 and December 17, 2020, for which public notice and notice by applicants were given as required by law; and

WHEREAS, the Board of Adjustment conducted a public site inspection of the applicants' property at a special meeting on December 12, 2020; and

WHEREAS, the Board of Adjustment considered the testimony and exhibits presented during the public hearing; and

WHEREAS, at the meeting on December 17, 2020, the applicants agreed to reduce the length of the proposed covered front porch; and

WHEREAS, at the meeting on December 17, 2020, the Board of Adjustment adopted an oral resolution approving the revised variance application, subject to certain conditions and based on findings and conclusions as memorialized herein;

NOW, THEREFORE, BE IT RESOLVED by the Harding Township Board of Adjustment, this 21st day of January 2021, that approval of the revised variance application of Sarah Conine and James Carifa, is hereby memorialized as follows:

Findings of Fact and Statement of Reasons

1. The property is a 3.65-acre lot (measured to the sideline) located at 7 Lee's Hill Road. The area within 200' of the road right-of-way line is in a R-2 Zone, and the rear portion of the property is in a R-1 Zone.

2. The front portion of the property is improved with a single-family residence, located entirely in a R-2 Zone that is nonconforming due to minimum front setbacks of approximately 25' for the front stoop and steps and 37' for the building façade versus a 50' minimum requirement, as shown on plans prepared by Joseph M. Hyland, Architect, initially dated September 30, 2020 and revised December 3, 2020.

3. The front portion of the property in the R-2 Zone also contains a conforming detached garage and swimming pool that are not proposed to be changed.

4. The rear portion of the property in the R-1 Zone contains a shed and two dwelling structures that are nonconforming as to use. No changes are proposed as to these structures or the portion of the property in a R-1 Zone.

5. The property has a nonconforming building area ratio of 3.12% based on the combined lot area in both the R-2 and R-1 Zones, exclusive of the road right-of-way, and the combined building area excluding the building area of pre-1945 accessory structures not devoted to residential use, in accordance with Section 225-126(C).

6. The applicants proposed to construct a covered front porch with dimensions of 62.33' by 9.5' in front of a substantial portion of the residence along with related improvements. Additions would be constructed to the rear and northeast (left) end of the residence that would contain 1 and 2 stories, and the attic would be vertically enlarged by about 6' with a new pitched roof. A bluestone patio would be installed to the rear of the residence along with a brick paver parking area. The proposed improvements were shown on the architectural plans.

7. As initially proposed, the proposed improvements would increase the nonconforming building area ratio from 3.12% to 4.07%, requiring variance relief from the applicable maximum of 3% in Section 225-126(C) due to the absence of a 150' front setback. The revised proposal that reduced the length of the proposed covered front porch reduced the extent of required building area ratio variance relief to a new ratio of 3.90%.

8. The proposed covered front porch would have a front setback of 27.8' and the steps would have a lesser setback, requiring variance relief from the 50' minimum front setback requirement in Section 225-126(F).

9. Variance relief is required from Section 225-115(B) to allow the proposed enlargement of the nonconforming residence structure.

10. The Township Health Department commented on the application in a memorandum dated February 26, 2020 that stated that the proposed expansion of the residence appeared to be in conformance with Health Department regulations and that there was no indication of any apparent adverse impact on the existing septic system. The memorandum noted that a prior approval application would be required in connection with a future request for issuance of a building permit.

11. Testimony in support of the application was provided by the applicants and their architect Joseph Hyland. They stated that the additions, renovations, covered front porch and vertical expansion of the attic to provide a peaked roof were intended to improve both functionality and the front appearance of the residence, which dates back to the 19th century. Construction of the covered front porch would necessitate relocation of unsightly utility service equipment and air conditioner compressors that presently are in front of the residence.

12. No neighbor or member of the public objected to the application.

13. At the second hearing, questions were raised concerning the functional necessity for the proposed length of the covered front porch in light of the proximity of the residence to Lee's Hill Road. The applicants indicated that the proposed covered porch area in front of the left wing of the residence would allow direct access to the porch from the new breakfast room in that

portion of the renovated residence. After further discussion, the applicants acknowledged that this rationale did not justify the additional required front setback variance relief, and they agreed to limit the proposed covered front porch to the area in front of the main section of the residence.

14. There was a discussion of tree removal and landscaped screening in the area between the residence and Lee's Hill Road. The applicants indicated that large mature trees would have to be removed to facilitate construction of the open front porch and due to poor condition of some trees. Other existing vegetation would be retained and supplemented. The Board decided to defer to the applicants' discretion as to landscaping in the front and thus determined to not impose a specific landscaped screening condition.

15. The need for front setback variance relief is attributable to the location of the residence and the resulting nonconforming front setbacks. The reduced size covered front porch and related renovations will enhance the appearance of the front of the residence.

16. There was discussion of the proposed vertical expansion that would substitute a peaked roof for the current relatively flat roof with an increase in the height of about 6'. The resulting calculated building height of 32.75', would continue to comply with the 35' building height limit.

17. The additions will be mainly located to the rear, and the enlarged residence will not have the appearance of excessive building mass.

18. The proposed improvements will enhance the historic appearance and character of the applicants' residence and property.

19. Based on the foregoing, granting necessary variance relief to permit the increased building area ratio associated with the expanded roofed footprint and also to permit the vertical expansion of the residence will not result in any adverse impacts on adjacent properties or impair the streetscape.

20. In the case of this specific property and the location and design of the existing residence and proposed improvements, strict application of the zoning requirements would impose peculiar and exceptional practical difficulties on the applicants by prohibiting the proposed additions, renovations and related improvements, thus making variance relief appropriate pursuant to N.J.S.A. 40:55D-70(c)(1).

21. The proposed enlargement of the nonconforming principal residence will not result in any significant intensification of the nonconforming use of this property arising from the nonconforming residential units in accessory structures on the rear portion of the property, which will not be altered or enlarged. Therefore, (d)(2) variance relief for nonconforming use expansion is not required for this application.

22. The variance relief requested by the applicants can be granted without substantial detriment to the public good and without substantially impairing the intent and purpose of the Master Plan and Zoning Ordinance of the Township of Harding.

Description of Variances

1. A (c) variance is hereby granted from Section 225-115(B) of the Land Use and Development Ordinance to permit enlargement of the applicants' nonconforming residence by construction of additions, a covered front porch and related improvements, as shown on architectural plans prepared by Joseph M. Hyland, Architect, initially dated September 30, 2020 and revised December 3, 2020 and required to be further revised as a condition of the variance approvals.

2. A variance is hereby granted from the 3% maximum building area ratio limit in Section 225-126(C) of the Ordinance to permit construction of a covered front porch and additions to the residence resulting in a ratio of 3.90%, as shown on the plans as required to be revised.

3. A variance is hereby granted from the 50' front setback requirement in Section 225-126(F) of the Ordinance to permit construction of a covered front porch with a minimum front setback of 27.8' (and a lesser setback for steps), as shown on the plans as required to be revised.

Variance Conditions

These variances are granted subject to the following conditions:

1. Any outstanding technical review fees shall be paid prior to issuance of a building permit and certificate of occupancy.

2. The applicants shall obtain Health Department approval, a building permit and any other necessary approvals.

3. These variances are based on and authorize only the specific proposed improvements as described by the applicants and as shown on the approved plans. New or amended variance approval may be required for any materially different improvements.

4. These variances are granted subject to the condition that the length of the covered front porch addition shall be limited to the area in front of the main section of the residence, and revised plans showing this change and related design changes to the residence, along with corrected zoning tables, subject to review and approval by the Board Attorney.

5. In accordance with Section 225-35(C)(1) of the Ordinance, these variances shall expire unless the authorized construction is commenced within one year from the date of this resolution and is subsequently pursued in a reasonably diligent manner, subject to any automatic extension pursuant to the Permit Extension Act.

Vote on Resolutions

For the Oral Resolution: Addonizio, Maselli, Newlin, Sovolos, Symonds & Flanagan.

Against the Oral Resolution: None.

For the Form of the Written Resolution: Addonizio, Maselli, Newlin, Sovolos, Symonds & Flanagan.

Against the Form of the Written Resolution: None.

HARDING TOWNSHIP
BOARD OF ADJUSTMENT

IN THE MATTER OF: : TRANSCRIPT
: :
CASE: BOA# 17-18 : OF
New York SMSA Limited Partnership:
d/b/a Verizon Wireless : REMOTE PROCEEDINGS
8 Millbrook Road :
Block 17; Lot 1; PL Zone :
X

Thursday, January 21, 2021
Zoom Remote Videoconference
Commencing at 8:30 p.m.

BOARD MEMBERS PRESENT:

MIKE FLANAGAN, Chairman
ALF NEWLIN
DAN MASELLI
HUGH SYMONDS
ELIZABETH SOVOLOS
THOMAS ADDONIZIO
ARIC ROSENBAUM
GEORGE BOYAN
MICHAEL CAMMARATA

ALSO PRESENT:

LORI TAGLAIRINO, Board Administrator
PAUL D. FOX, P.E., CME
M. McKINLEY MERTZ, PP, AICP
DR. BRUCE EISENSTEIN, Cellular Communications
Consultant

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1 A P P E A R A N C E S:

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GREENBAUM, ROWE, SMITH & DAVIS, LLP
3 BY: STEVEN G. MLENAK, ESQUIRE
Attorneys for the Board

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5

VOGEL, CHAIT, COLLINS & SCHNEIDER, ESQUIRES
6 BY: RICHARD SCHNEIDER, ESQUIRE
Attorneys for the Applicant

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HEROLD LAW, PA
8 BY: ROBERT F. SIMON, ESQUIRE
Attorneys for the Objectors: SGSL, LLC; Harsh and
9 Nina Bansal; Michael and Susan Koenek;
David and Eunice Conine; Brian and
10 Christina McKittrick; Livio Saganic and
Christel Engel; James M. Carifa and
11 Sarah G. Conine; Ted Cotton

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WITNESS:

PAGE

FRANCES BOSCHULTE.....10

E X H I B I T S

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DESCRIPTION

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A-27	PierCon Solutions report Entitled "Supplemental Harding 3" dated 1/18/21	11
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NO PUBLIC MEMBERS ARE SWORN

1 CHAIRMAN FLANAGAN: Okay. Moving right
2 along, we're back to Board of Adjustment 17-18 New York
3 SMSA Limited Partnership.

4 Mr. Schneider, welcome back. Happy New
5 Year.

6 MR. SCHNEIDER: Happy New Year to you, Mr.
7 Chairman, and all members of the Board.

8 CHAIRMAN FLANAGAN: Mr. Simon, I think I
9 saw you somewhere earlier. Oh, there you are. Happy
10 New Year. Welcome back again.

11 MR. SIMON: I will express the same
12 sentiments as Mr. Schneider.

13 SECRETARY TAGLAIRINO: And Dr. Eisenstein,
14 I think your colleague is on.

15 DR. EISENSTEIN: That is correct. He is
16 on.

17 CHAIRMAN FLANAGAN: And just to revisit the
18 conversation from earlier, does Dr. Eisenstein need to
19 be re-sworn in, Steve, or are we all set there?

20 MR. MLENAK: I believe we're all set.

21 CHAIRMAN FLANAGAN: All right. Good.

22 BOARD MEMBER BOYAN: Mike, just quickly,
23 before you proceed I just want to represent and get on
24 the record that I've read the transcripts and am
25 prepared to participate.

1 CHAIRMAN FLANAGAN: You are probably the
2 most ambitious Board of Adjustment member there has
3 ever been, because there are reams of transcripts. So
4 good for you.

5 SECRETARY TAGLAIRINO: I was actually
6 impressed.

7 CHAIRMAN FLANAGAN: Good for you. There
8 will be a quiz later in the night. So make sure you
9 have every page read. I'm teasing.

10 MR. SCHNEIDER: Needless to say, Mr.
11 Chairman, that the Applicant does extend its
12 appreciation to the new Board member for undertaking
13 that mammoth task and rendering him eligible. That is
14 greatly appreciated.

15 SECRETARY TAGLAIRINO: And I know he read
16 the fine detail, because he asked questions of
17 something that we said and we didn't do yet. So I know
18 he was really paying attention.

19 MR. SCHNEIDER: Lori, just before we
20 proceed, Iris our Shorthand Reporter, I just want to
21 make sure that she is on.

22 COURT REPORTER: I am ready to go. Thank
23 you.

24 SECRETARY TAGLAIRINO: And Iris, that is
25 your phone then too?

1 COURT REPORTER: It is. 4355?

2 SECRETARY TAGLAIRINO: Yes.

3 SHORTHAND REPORTER: It is. Thank you,
4 Lori.

5 MR. SCHNEIDER: Mr. Chairman, if I can just
6 take a couple of moments to just to refresh for
7 everybody where we are?

8 CHAIRMAN FLANAGAN: Yes. And let me just
9 say before we start, we have many participants tonight
10 or many residents tonight. Thank you everyone for
11 joining. I'm glad you can be with us.

12 For those of you who have not been to a
13 Board of Adjustment meeting before the procedures we
14 follow is there's going to be testimony from witnesses.
15 There are going to be questions from the public, from
16 the Board as well. But when it comes time for the
17 public to ask questions of the witness we extend the
18 courtesy to Mr. Simon to go first who represents many
19 of the neighbors of the area, but at that point after
20 Mr. Simon goes through his questions there will be an
21 opportunity for anyone else who is not represented by
22 Mr. Simon to ask questions related to the testimony we
23 hear.

24 So with that, Mr. Schneider, if you
25 wouldn't mind refreshing us as to where we were.

1 MR. SCHNEIDER: I will. And hopefully we
2 can make great progress this evening. Thank you.

3 So we last appeared at the December Board
4 meeting, at which time my recollection and consistent
5 with Mr. Simon's recollection was that we actually
6 completed both at that time the direct testimony of Ms.
7 Boschulte, the Applicant's RF engineer, and Mr. Simon
8 did, in fact, complete his cross-examination of Ms.
9 Boschulte. And to clarify your last remark, actually
10 my notes do reflect that the matter was open to the
11 public and I don't believe there was any questions from
12 the public as to the testimony that had been presented
13 to date by Ms. Boschulte.

14 That being said, the Board together with
15 Dr. Eisenstein, and to a certain extent Mr. Simon,
16 asked for some supplemental information based on the
17 presentation of Ms. Boschulte at the December meeting.
18 We agreed to, I hope, respond to all of your inquiries.
19 And in furtherance of that, in which I'll get to in a
20 minute, we did submit a supplemental report in written
21 form to hopefully address the respective questions both
22 by Mr. Simon, the Board and others.

23 So my intention tonight is to proceed with
24 Ms. Boschulte who will be testifying in furtherance of
25 the supplemental report that has been presented, posted

1 on the website and I think made available to all
2 parties, and I'll get to that in a minute. And then my
3 hope and expectation would be that we would after my
4 direct we'll have Mr. Simon proceed, or after the Board
5 questions and Dr. Eisenstein has any questions for Ms.
6 Boschulte we'll proceed with Mr. Simon's
7 cross-examination, then any members of the public. And
8 the hope is, key word being hope, that would at least
9 conclude the portion of the testimony relating to radio
10 frequency, and then hopefully at the next meeting
11 proceed with planning. That's my hope and expectation.
12 So I would hope that we would be in a position to
13 accomplish that tonight.

14 So unless there is any other procedural
15 questions I can proceed with Ms. Boschulte who I
16 presume is on.

17 CHAIRMAN FLANAGAN: Let me just ask. Mr.
18 Simon, my recollection is the same. Do you recall -- I
19 think you reserved your questioning until Ms. Boschulte
20 presented the testimony she's about to give tonight,
21 and you were going to continue with any
22 cross-examination after she presents tonight. Is that
23 correct?

24 MR. SIMON: Well, I don't know if it
25 actually was contemplated that Ms. Boschulte was going

1 to be submitting a supplemental radio frequency report.
2 And I do object to the fact that I did not receive, and
3 the Board frankly did not receive this supplemental
4 radio frequency report until two days prior to this
5 evening, which gives very, very little time, you know,
6 for myself, as well as the Board members and the Board
7 professionals, to fully review this information,
8 especially given its technical nature.

9 That being said, my objection is noted, and
10 I will certainly try to muddle through
11 cross-examination based on the testimony and the
12 report.

13 CHAIRMAN FLANAGAN: Mr. Simon, I do recall
14 the request of the Board was that Ms. Boschulte submits
15 a supplemental report, and specifically about the nodes
16 I think is what we were talking about. Your objection
17 is noted. I would say let's get through this testimony
18 and we'll just see if we can finish up with Ms.
19 Boschulte's testimony and cross-examination tonight.

20 MR. SCHNEIDER: Thank you, Mr. Chairman.
21 If I may proceed at this point?

22 CHAIRMAN FLANAGAN: Please do.

23 MR. SCHNEIDER: Thank you.

24 Frances, you are on?

25 MS. BOSCHULTE: I am.

1 MR. SCHNEIDER: Okay. I will just remind
2 you for purposes of the record that you remain under
3 oath. Okay?

4 MS. BOSCHULTE: Yes.

5 F R A N C E S B O S C H U L T E, having been
6 previously sworn, testifies as follows:

7 EXAMINATION BY MR. SCHNEIDER:

8 Q. Thank you. Frances, you previously
9 submitted an RF or radio frequency report dated
10 August 28, 2018, and March 3rd, 2020; is that correct?

11 A. Yes.

12 Q. And for purposes of the record, when you
13 last testified at the December 17, 2020, public hearing
14 there was a request by the Board based on the testimony
15 you presented that evening to provide certain
16 additional information; is that correct?

17 A. Yes.

18 Q. And while I understand that you will
19 provide some supplemental testimony this evening you've
20 prepared this supplemental report in written form to
21 formalize the presentation of some of the information
22 and data; is that correct? (Pause) Frances?

23 A. Yes, I have. Can you hear me?

24 Q. Yes, I can. I'm sorry. You froze there
25 for a second.

1 And for purposes of the record, not
2 withstanding Mr. Simon's objection, the report that you
3 prepared had been previously transmitted to Dr.
4 Eisenstein, and you also had the opportunity to discuss
5 certain aspects of the report directly with Dr.
6 Eisenstein, whether that be by e-mail or otherwise; is
7 that correct?

8 A. That's correct.

9 MR. SCHNEIDER: Thank you. And for
10 purposes of the record, Mr. Mlenak and members of the
11 Board, the report that I am referring to is a report
12 prepared by PierCon Solutions entitled "Supplemental
13 Harding 3." It has a date of January 18, 2021. I
14 would respectfully ask that that report be marked into
15 evidence as Exhibit A-27, which I believe is the
16 exhibit we are up to?

17 SECRETARY TAGLAIRINO: Yes.

18 (Exhibit A-27, was received and marked.)

19 BY MR. SCHNEIDER:

20 Q. Okay. Thank you. With that being said,
21 Frances, I'm now going to refer you to that report, and
22 I'm going to direct your immediate attention to Article
23 or paragraph two as the case may be, and the referenced
24 exhibits denoted as Z-3, 4, 5, 6, 7, and 8.

25 Let me in the interest of moving the matter

1 along, which I'm sure hopefully we can all appreciate,
2 let me see if I can provide some background and context
3 as to those specific exhibits.

4 Those exhibits are based on, and you
5 correct me if I'm wrong, were based on the drive test
6 that you previously testified to that was conducted on
7 March 3rd, 2020; am I correct?

8 A. That's correct.

9 Q. And just for the Board's and members of the
10 public recollection, that drive test which you
11 explained in detail at the prior public hearing, no
12 need to review that again, that drive test was
13 conducted at three respective heights, that being 120,
14 180 feet; am I correct?

15 A. Yes.

16 Q. Okay. And you also undertook that drive
17 test at two specific frequently bands: The 700 and
18 2100 megahertz band; correct?

19 A. That's correct.

20 Q. Okay. Now, in December in response to Mr.
21 Simon's extensive cross-examination at the November
22 public hearing you were asked to present certain
23 exhibits relative to scan data of the existing coverage
24 essentially depicting the dB levels in numerical
25 fashion, as distinct from just whether the coverage was

1 in a green or gray area; do you recall that?

2 A. Yes, I do.

3 Q. Okay. And the form of that exhibit, my
4 perception I thought was helpful to the Board -- I'm
5 sorry -- and the form of that exhibit, at least from my
6 perception, was deemed to be helpful by the Board, and
7 in fact Dr. Eisenstein quoting him said those exhibits
8 were helpful.

9 With that background, did you prepare the
10 report and specifically Exhibits Z-3 through Z-8
11 utilizing that same type of format?

12 I'm sorry, Frances, can you hear me?

13 A. Yes, I did. Can you hear me?

14 Q. Yes, I can.

15 MR. SIMON: Rich, sorry for interrupting,
16 but the witness, at least from my viewpoint, the video
17 is freezing from the audio a little bit.

18 MR. MLENAK: It was, Mr. Simon. I was
19 going to comment. If you can ask the last question
20 again so she's on video when she answers that. It was
21 a little choppy.

22 BY MR. SCHNEIDER:

23 Q. Okay. If I remember the question I asked.

24 The exhibits that are prepared and
25 reflected on Sheets Z-3 through Z-8 mirror or follow

1 the type of format that was referenced on exhibits A-25
2 and A-26 last time; is that correct?

3 A. That is correct.

4 Q. And you prepared these exhibits again --

5 A. That is correct.

6 Q. -- and you prepared these exhibits based on
7 the same -- the three heights, that being 120, 100 feet
8 and 80 feet; is that correct?

9 A. Yes.

10 Q. And you also prepared those exhibits based
11 on the two specific frequency bands, that being the 700
12 frequency band and the 2100 frequency band; correct?

13 A. That is correct.

14 Q. Okay. Thank you. Hopefully, with that
15 background in mind if you can take us through Exhibits
16 Z-3 through Z-8 as reflected on Exhibit A-27, and I'll
17 ask you to assist with Lori in terms of what may be
18 exhibited for the benefit of the Board and public.

19 SECRETARY TAGLAIRINO: All right. I have
20 the report up on my screen. Are you looking for that
21 page six, seven, and eight? Is that what you're
22 looking for?

23 THE WITNESS: Yes.

24 SECRETARY TAGLAIRINO: Okay. Just give me
25 a moment, please. All right. So here we have -- is

1 this where you want to start?

2 THE WITNESS: That's fine. So this is the
3 CW tech that was provided previously. As you can see,
4 the labels that represent the RSRP levels have been
5 added. Can you hear me?

6 MR. SCHNEIDER: Yes.

7 THE WITNESS: If you move down to page
8 seven you have the CW test at 700 megahertz at the 100.
9 Again, those labels have been added to represent the
10 signal of levels that are equal to or greater than neg
11 95, and the gray represents signal levels that are
12 weaker than neg 95. Can you see my curser or no?

13 SECRETARY TAGLAIRINO: No, you can only see
14 my cursor.

15 THE WITNESS: The difference in between the
16 two levels in my evaluation between 120 feet and 100
17 feet happened on Millbrook Road. And if you look at, I
18 guess, the location where you have the "D" in road,
19 that area isn't no longer at the neg 95 level. If you
20 go back to page six you'll see that it extends a little
21 bit further. It gets to see a little bit over the hill
22 that runs along between. On the west side of Millbrook
23 Road you have a ridge of approximately 400 feet in
24 ground elevation versus the ground elevation at the
25 DPW, which is 300 and -- approximately 350 feet. So it

1 does get to the top and a little bit over down
2 Millbrook Road, which is in a valley. A little bit
3 further it's approximately 900 feet.

4 If you go down to page eight. That's
5 seven, page eight represents the CW test at 700
6 megahertz at 80 feet. Again, the signal strengths are
7 labeled. And again, it also cuts off at the "D"
8 location in "Road" at Millbrook.

9 The next exhibit --

10 BOARD MEMBER NEWLIN: Can I ask a question?
11 Because we covered some of this. I just want to
12 refresh. And Dr. Eisenstein, please, please, correct.
13 But these numbers are the in-house numbers, not the
14 actual numbers that was received by the card? Didn't
15 we say something about that, they've been projected or
16 adjusted to be in-house, is that true or --

17 DR. EISENSTEIN: My understanding is that
18 this is the same drive test you saw before, except that
19 in addition to just having the colors, the green and
20 the gray, you now have the numbers that the color
21 represents.

22 So if you look down in the area that they
23 were just talking about, just below on the slide that
24 we're on, it doesn't matter which one, but I'm just
25 using a reference there, just below the "D" in

1 Millbrook Road it says minus 98.14. I have to get
2 close to my screen to see that. The numbers are small.
3 But that means that the power at that point is minus
4 98.14 dBm RSRP, whereas the dot above that would be
5 better than neg 95.

6 So it's not, I don't -- Alf, just for
7 general information, I don't like using this in-house
8 or out-of-house or in-street or on-vehicles. It's
9 meaningless. This is the measurement of the actual
10 tower that the car was picking up when it drove this
11 test.

12 BOARD MEMBER NEWLIN: So these are not
13 adjusted at all? That was really my question.

14 DR. EISENSTEIN: As far as I understand,
15 no.

16 BOARD MEMBER NEWLIN: Okay. And one other
17 point I think you had said last -- I'm sorry?

18 THE WITNESS: Sorry. These are adjusted,
19 because CW test, which is a continuous wave, is
20 actually in RSSI. And this is RSRP, which is relative
21 to LTE. So it has been adjusted through an equation
22 that.

23 MR. MLENAK: Ms. Boschulte, you are cutting
24 in and out. And for the purpose of the hearing and
25 obviously the Court Reporter, we need to capture what

1 you're saying. So if you wouldn't mind -- obviously
2 there's a poor connection unfortunately, but we need to
3 hear every word.

4 BOARD MEMBER MASELLI: She needs a cell
5 tower.

6 THE WITNESS: I do. Okay. Can everyone
7 hear me now?

8 BOARD MEMBER NEWLIN: We can.

9 THE WITNESS: The measurements have been
10 adjusted to reflect RSRP. So when you do a CW test, of
11 course, you don't have the same specifications that you
12 would have of a cell tower. So these signals have been
13 adjusted to reflect what the cell tower would provide
14 for LTE. RSSI, which is received signal strength, is
15 not the same as RSRP. RSRP is a function of RSSI, plus
16 the frequency bandwidth.

17 So that equation was provided. It's an
18 equation that is -- it's a standard equation to
19 correlate RSRP to RSSI. That was provided to Dr.
20 Eisenstein so that this would be done. Otherwise, you
21 can't correlate the scanned drive test, which is the
22 data collected from an LTE network, and compare it to
23 what an actual base station would provide.

24 BOARD MEMBER NEWLIN: Can you explain that?

25 DR. EISENSTEIN: Yes. That was a totally

1 unnecessary explanation, in my opinion.

2 THE WITNESS: Sorry.

3 DR. EISENSTEIN: It would be as if you had
4 a map that had feet instead of meters and there is a
5 conversion factor that would convert it to feet. So if
6 you wanted to be consistent you'd put it all in feet or
7 you'd put it all in meters.

8 What she said is absolutely correct, but it
9 doesn't answer your question. That is the power level
10 that you would see on the street in the car that was
11 driving by. And it's been corrected to give you a
12 measure called RSRP, and unnecessary to go into the
13 details there, but that's what would be on the tower.
14 That would be the power on the tower. If -- and well,
15 I'm not going to go any further.

16 BOARD MEMBER NEWLIN: That's fine. That
17 answers that.

18 DR. EISENSTEIN: It's a straight-forward
19 conversion. It's not an assumption or anything like
20 that. It's a formula.

21 BOARD MEMBER NEWLIN: Okay. We did
22 refer -- unless I'm going crazy -- the last time we did
23 talk about somehow getting them -- the signals would be
24 less in the house, and that was really my question. I
25 think you answered it.

1 Same question for you is, did you not say
2 if we had to look at a number, neg 95 is the standard,
3 we understand that, but basic usability is higher, and
4 did you not give the suggestion of around 105, or am I
5 misremembering that?

6 DR. EISENSTEIN: Well, you see, usability
7 is not a technical word. It's not a word that you can
8 define. Remember that the cell phones today are not
9 just used for voice calls. You do a lot of other
10 things with them. That's including things like Waze
11 and Maps and Google searches and other things.

12 So the issue is not whether the phone is
13 usable. It could be usable in the sense that with
14 enough poking and prodding you can get it to do what
15 you want it to do. That's not the way you design a
16 network, and that was the point that I was trying to
17 make. Yes, the phones will work in the sense of a
18 voice call, but we actually have a textbook realization
19 of what happens when you don't have enough bandwidth.
20 And that's what's happening with Frances. It's coming
21 up on my screen when she talks that she has
22 insufficient bandwidth for a Zoom call. So if you were
23 trying to do the Zoom call on your phone and you had
24 insufficient bandwidth you would have going on this
25 cutting out and missing words and not seeing the image.

1 And that's the part that when you're putting a cell
2 phone, a wireless network together, you don't want that
3 to happen ever, even though it could be argued that the
4 system's usable in some sense that isn't the way you
5 would like to design your system.

6 BOARD MEMBER NEWLIN: Sure, and I'm going
7 to press you a little bit, because this is very
8 important to all of us. We're looking at this map and
9 what the map shows in a sense it implies good and bad.
10 And that's not really quite the case. It's not a
11 binary situation, if you're on green it's fine and when
12 your off green you can't get any service, that's
13 obviously not true. So, you know, from trying to
14 understand this we have no choice but to look at how
15 the service might degrade when you're off the green.

16 And then secondly, there is a public safety
17 question that's been raised. So voice communication
18 seems to be, you know, a top priority, specifically.

19 DR. EISENSTEIN: But, look, you can see
20 what happens -- by the way, I fully agree with you.

21 BOARD MEMBER NEWLIN: So give us some
22 guidance in an objective way so we can think about this
23 without making a big mistake.

24 DR. EISENSTEIN: If you look down, again,
25 just for the sake of argument, at the "D" Millbrook

1 Road --

2 MR. MLENAK: Dr. Eisenstein --

3 MR. SIMON: Wait. Hold on a second --

4 MR. MLENAK: -- if you wouldn't mind turning
5 your camera on as you testify? I didn't have you as
6 one of my five, but you should have your camera when
7 you testify.

8 DR. EISENSTEIN: I thought I did, but okay.
9 It must have gotten turned off somehow. You're okay
10 now, right?

11 MR. MLENAK: I see you now, yes.

12 DR. EISENSTEIN: I'm sorry. Apologize for
13 that.

14 If you look at that "D" in Millbrook Road
15 and it's a green dot there and that's neg 95, go down
16 to the next dot it's neg 98. Now, Alf, to answer your
17 question, the phones would probably work okay over
18 there, but go to the next dot down. Next one down says
19 neg 106. Now, I didn't mean the next slide, no, no.
20 Just look right where you are, the next gray dot. That
21 one. Neg 106, inadequate. Now you're off the scale.

22 So if you want to try and shade this, I
23 mean, you can look around, I looked at this map very
24 carefully when it was sent to me and I found it very
25 helpful, because I know that the signal degrades as you

1 move away from the source, and I know it degrades
2 rapidly, but what this tells me is, yeah, you go one
3 dot beyond the green and it might work, but you go two
4 dots beyond the green and all of a sudden you're down
5 way below the level where it would even operate. And
6 if you look at the map you'll see a lot of the ones in
7 the gray area are neg 118, I see a neg 126, net 127,
8 you know, down in those areas you've got nothing.

9 BOARD MEMBER SYMONDS: Dr. Eisenstein, this
10 is -- wait a minute. I'm off the -- my residence is
11 located on the "D" at Pleasantville Road, which is
12 around the corner from --

13 DR. EISENSTEIN: Lori, can you move the
14 cursor over so I can see where that is? I can't --

15 BOARD MEMBER SYMONDS: Right there. That
16 shows a negative 126.5 on the signal strength. And yet
17 I have cell service and, you know, data service in the
18 house, in the car, whatever. So how does that
19 correlate where you say, you know, it's got to be neg
20 95, and you're showing me neg 126 or, you know --
21 that's what I'm trying to understand.

22 DR. EISENSTEIN: I can't tell you what
23 happens in your house. What I can tell you is if this
24 measurement is accurate, and I have every reason to
25 believe it is, you're hearing sworn testimony, that at

1 neg 126 you wouldn't have much of anything. I assume
2 you're on Verizon; is that correct?

3 BOARD MEMBER SYMONDS: No. It's actually
4 AT&T. Well, actually we have both.

5 DR. EISENSTEIN: First of all, we don't
6 have an AT&T diagram up here, but my sense is that --

7 BOARD MEMBER SYMONDS: But that's all right
8 -- actually, we have two cell phones, so one's AT&T and
9 one's Verizon. But never mind, go ahead. I'm just,
10 again, it's an understanding. I'll try to get used to
11 it.

12 CHAIRMAN FLANAGAN: While we're on this
13 topic and not belabor the point, but I'd like to hear,
14 Dr. Eisenstein, your thought. I think I'd like to hear
15 from Mr. Simon, Mr. Schneider as well. So at one
16 point, correct me if I'm wrong, Mr. Schneider, or Ms.
17 Boschulte, you had said that neg 95 is either a PierCon
18 or a Verizon standard. Do I recall that correctly?

19 THE WITNESS: So on neg 95 is the Verizon
20 threshold standard, their design.

21 CHAIRMAN FLANAGAN: That's fine. So let me
22 just, so is Verizon's threshold what they consider
23 acceptable quality. So as we have this discussion it
24 seems that there's a lot of law involved with cell
25 phone towers and providing coverage where there is no

1 coverage. So I'd like to hear Dr. Eisenstein, we'll
2 start with you. Mr. Schneider, we can go to you next.
3 Mr. Simon I'd like to hear from you.

4 If what we're discussing is as a matter of
5 law cell phone coverage has to be provided does that
6 law state what the power needs to be? And if the law
7 doesn't state it there certainly must be litigation
8 somewhere and the courts have said what is sufficient
9 and what is not.

10 So Dr. Eisenstein, what's your
11 understanding of what the law or the Courts have said?

12 DR. EISENSTEIN: As far as I know, there is
13 nothing in any of the Federal law that specifies a
14 power level. It specifies a performance level and the
15 performance level is given, in my opinion, in an
16 indirect way.

17 In the 1996 Telecommunications Act it
18 refers back -- that's actually -- technically that was
19 an amendment to the 1934 Telecommunications Act, which
20 was obviously at that time only wired phones. And it
21 gave a performance criteria, what's known as a grade of
22 service, of two percent. That meant that no more than
23 two percent of the calls could be blocked or dropped.
24 And that was referred to in the 1996 amendment to the
25 Telecommunications Act. So I've always had in my head

1 that two percent criteria, a combination of dropped and
2 blocked calls.

3 It's difficult to determine -- I know a
4 little further in this exhibit Frances has provided
5 dropped call information. It's difficult to determine
6 blocked call information when there's no coverage. So
7 let's just hold that two percent.

8 Through a variety of tests that have to do
9 with signal and noise ratio, not the signal power by
10 itself, but the signal-to-noise ratio, you would not
11 get your two percent grade of service if the
12 signal-to-noise ratio drops too low. So what happens
13 over here the amount of noise power you're going to get
14 is random. It changes from minute to minute, from
15 second to second. So you really can't say, as the
16 Board member was saying before, you know, I get
17 service. It's entirely possible that at a given power
18 level the noise level has dropped so that you have a
19 signal-to-noise ratio which is adequate. It's also
20 possible the noise could be way up and at that power
21 level it's going to be inadequate.

22 So you can't deal in these wireless cases
23 in absolute. You can't say absolutely this number
24 works and this number doesn't work. What you have to
25 do is pick a number and then that number happens to be

1 neg 95. And by the way, that's sort of an industry
2 standard for this area. You pick a number like that
3 and what that number says is for that amount of power,
4 and the expected amount of noise power we're going to
5 get, the signal-to-noise ratio will be adequate and
6 you'll have a signal. Not optimum but adequate. And
7 that gives you a margin of error so that if the power
8 is lower or if the noise gets higher then you're still
9 okay.

10 CHAIRMAN FLANAGAN: Okay. All right.
11 Thank you for that.

12 Mr. Schneider, I thought it would be a
13 fairly simple question, but in your understanding what
14 does the law or have the Courts said about what is
15 required signal strengths?

16 MR. SCHNEIDER: I substantially agree with
17 Dr. Eisenstein. Let me make -- maybe we can save all
18 this to the end, but let me give a concise respond,
19 hopefully concise. The FCC by its terms doesn't
20 mandate a specific signal strength level as Dr.
21 Eisenstein indicated. It doesn't say that you have to
22 achieve neg 85, neg 88, neg 92, neg 95. It does not do
23 that. I think we would all agree with that. Certainly
24 Dr. Eisenstein and I would agree with it. Whether Mr.
25 Simon does or not I don't know.

1 That being said, there are various cases
2 which have suggested appropriate standards, whether it
3 be neg 85, neg 95. That all being said, what I think
4 is important here is Verizon is designing to a neg 95
5 standard, which to -- and I'll make two comments. I
6 think Dr. Eisenstein has referred to it as an industry
7 standard. I think that's correct, but I think most
8 significantly, and I don't want to speak for Dr.
9 Eisenstein, he certainly can speak for himself, I think
10 he has previously articulated that that is a reasonable
11 and conservative standard to design to. This is not
12 where Verizon is designing to a standard that is
13 unreasonable. I think that is a reasonable standard to
14 design to. Dr. Eisenstein has indicated that it is
15 consistent with industry standards and that it's
16 appropriate as a design objective.

17 The third comment I would make, Mr.
18 Chairman, to put some perspective on so we don't get
19 too far afield here, is the specific purpose of this
20 exhibit was as follows: You will recall at the
21 November meeting it was Mr. Simon who was suggesting
22 that we should not look at a clear bright line and say
23 either green or gray, the signal doesn't fall off the
24 cliff if it's neg 96. So just putting it in green and
25 gray was not a fair and appropriate inquiry. That's

1 the origin of what this exhibit and the exhibit at the
2 prior hearing was intended to address.

3 So what Ms. Boschulte now has done by two
4 separate submissions has indicated, we're not just
5 doing this bright line at neg 95, we're giving you the
6 numerical numbers of all of the data points both below
7 neg 95 and above neg 95 so you get a full picture so
8 that no one is suggesting that anybody manipulated so
9 to speak the areas by suggesting, well, if it's neg
10 95.1 it's gray. We wanted to give you the whole
11 picture both as to existing coverage and proposed
12 coverage, and that was the purpose of both A-25, A-26,
13 and A-27.

14 So in summary there are various standards
15 which I don't know that I want to spend 20 minutes with
16 this evening articulating the quality of service, but
17 suffice it to say the FCC does not set a specific
18 numerical dB standard, but neg 95 in my strong and firm
19 opinion is a reasonable standard to design to. It's
20 consistent with industry standards. And I think it's a
21 conservative and reasonable standard as previously
22 articulated by Dr. Eisenstein.

23 CHAIRMAN FLANAGAN: Okay. So understand my
24 question here. I don't know what a reasonable standard
25 is, okay. I listen to what has been presented. I

1 understand that there are requirements and then you
2 have the right to fill voids in service via the law.
3 The law does not specify how strong that signal seems
4 to be. And what we're doing here is we're looking at a
5 signal strength at 80 feet versus how strong it is at a
6 hundred feet. And what I'm trying to understand is --

7 MR. SCHNEIDER: And 120.

8 CHAIRMAN FLANAGAN: And 120, right. So at
9 various heights, understandably as the tower is higher
10 the strength is greater. You know, I think there is a
11 desire to minimize the impact of the tower, so a
12 shorter tower is better. So what I'm trying to
13 understand is to abide by the law, you know, how strong
14 does it need to be? So if I were to come in and say,
15 you know, if we were to grant an approval that gave you
16 a signal strength of neg 100 or neg 120, whatever it
17 were, is that unreasonable?

18 That's why I was asking -- certainly this
19 question's been asked before. Right? I would think
20 that the Courts have looked at this and said, well,
21 this height was granted which provided the signal
22 strength, and negative 120 was unreasonable or it was
23 reasonable. That's my ask. So I still feel like I'm a
24 little bit in the dark, but that's the reason for my
25 question.

1 Mr. Simon, what is your understanding of
2 what the law or the Courts have said about how strong a
3 signal must be provided?

4 MR. SIMON: Well, a little bit of a loaded
5 question. I'll try to answer it. First of all,
6 whether or not there is an industry standard in my
7 humble opinion is absolutely irrelevant to the
8 Applicant's burden of proof for these kind of
9 applications. The Applicant presents their case. They
10 tell you what, in this case Verizon, what their desired
11 signal strength is. They provide proofs to they
12 believe warrant that desired signal strengths. And
13 that's part of their positive and negative criteria for
14 "D" Variance relief in these kind of cases. So the
15 industry standard's irrelevant.

16 Second of all, in terms of what's a
17 reasonable standard to design to, and I think Mr.
18 Flanagan you hit the nail on the head in a sense, in
19 that if you are designing to a signal strength of let's
20 say neg 105 dBm RSRP for this kind of application, what
21 you're looking at right now on this page eight, the
22 green is going to be extended because you're going to
23 be covering more because the negative 95 is being
24 expanded to negative 105. The reason why that may
25 become relevant to this Board and its deliberation on

1 this application is in consideration of a number
2 factors, including what is currently out there by way
3 of Harding, Harding 2, Morristown 3, Chatham 2. What
4 is being proposed by way of the ODAS system, which I'm
5 sure Ms. Boschulte will effectively get to later in her
6 testimony, and also what you're actually trying to
7 cover. Are you trying to cover on the ground? Are you
8 trying to cover in a car? Are you trying to cover in a
9 building? What kind of building are you trying to
10 cover? Does that building have other systems whether
11 it's an indoor DAS system? Whether there are small
12 cell alternatives. Whether there are rooftop
13 alternatives. Whether there is voice-over IP. Whether
14 you have Wi-Fi. There are numerous factors that this
15 Board will I know very effectively consider at the end
16 of this case. And one thing I do agree with Mr.
17 Schneider about is that it's probably best that we wait
18 toward the end where this can all be wrapped up with
19 legal argument in terms of what the legal standard is
20 in applying the facts that were presented over the
21 course of the proceedings to that legal standard.

22 And again, I'm not trying to pontificate,
23 I'm just saying there's a lot that goes into it. And I
24 think that although it may be a very wise Chairman
25 question, which I believe it is, I do think that the,

1 you know, there's no standard in the law where an upper
2 Court has said this is the standard and this is the
3 standard that all the carriers need to abide by.
4 There's no case law that has come to that conclusion.
5 There's case law that says that based on the evidence
6 presented that the Court finds that blank standard is a
7 reasonable standard, that and --

8 CHAIRMAN FLANAGAN: Even for a specific
9 application, though, the Court has never come back and
10 said in this specific -- in Mendham or wherever it was,
11 the Court didn't come back and say this would have been
12 a reasonable standard versus whatever they chose in
13 terms of signal strength?

14 MR. SCHNEIDER: Yes. The Courts have
15 addressed that, Mr. Chairman.

16 CHAIRMAN FLANAGAN: And obviously every
17 case is fact specific.

18 MR. SCHNEIDER: I'm sorry. Go ahead.

19 CHAIRMAN FLANAGAN: But I think you said in
20 those cases, Mr. Schneider, the Courts came back at
21 somewhere between neg 85, neg 95; is that correct?

22 MR. SCHNEIDER: That's correct. I believe
23 in Upper Saddle River case there are cases, and that
24 goes back to my point that while the FCC -- I think the
25 original question -- the FCC has it by order or

1 regulatory or statutory scheme, set forth a specific
2 standard such as they did relative to EMF, the case law
3 has provided some guidance as to reasonable design
4 standards. And with all due respect I think we have to
5 in large measure, and i think the Board should in large
6 measure, rely on its own expert Dr. Eisenstein as to
7 what a reasonable standard is. And I think he's given
8 his opinion in that regard.

9 The issue of the standard to which we're
10 designed was discussed at length back in 2019. And Dr.
11 Eisenstein gave an opinion. And we have proceeded
12 based on that consistent with the testimony of Ms.
13 Boschulte. And I think that probably puts a wrap on
14 this, but I firmly believe that the standard to which
15 Ms. Boschulte has designed and presented testimony is a
16 reasonable appropriate standard consistent with the
17 case law, and is a reasonable design, if not
18 conservative standard, for the presentation of this
19 application.

20 CHAIRMAN FLANAGAN: And no disrespect to
21 Dr. Eisenstein, two years ago it's difficult for me to
22 recall what we discussed.

23 MR. SCHNEIDER: My only point in mentioning
24 it -- Mr. Chairman, my only point in mentioning it was
25 that, you know, I'm sure we all forgot what we may have

1 testified to two months ago, but my only point was it
2 was a point of discussion and I remember it
3 specifically. I can find that in the transcript.

4 BOARD MEMBER NEWLIN: Let me say, this is
5 really helpful to the Board members, Rich, to
6 understand it. And also, particularly, we never had
7 these numbers before, and I certainly agree that
8 providing the numbers is really helpful for us to
9 understand. This is good.

10 DR. EISENSTEIN: If I can just add to that.
11 I've never seen these numbers before in this way, so
12 this was helpful to me. I had the sense that it
13 dropped off very quickly. If you look at this map what
14 you'll see is, that if you change the number, just look
15 everywhere where you see a green dot going onto a gray
16 dot. At most you're looking at one gray dot different
17 before it goes down to what would be an unacceptable
18 level. You're not looking at a case where you're
19 getting neg 95, neg 96, neg 97. That isn't the way the
20 systems work. It goes down very quickly from neg 95 to
21 101.

22 And you know, there -- if you're designing
23 at that level you've lost your margin of safety. And
24 as I said, if the noise floor comes up on you you're
25 going to have terrible communication. It will be

1 unstable.

2 CHAIRMAN FLANAGAN: Ms. Boschulte, and this
3 will be my last question for the moment. I'm sorry.

4 Very quickly, as I look at this chart I
5 thought I understood it, but now as we speak about it
6 more I understand it less. I thought what it was
7 showing us was the signal strength assuming the tower
8 is placed at the Harding DPW, which this seems to show,
9 right. So as you're close to the DPW you have green
10 dots; as you get away from it you have gray dots. But
11 isn't the real question how strong the signal strength
12 is given all of the towers in the area? Therefore,
13 with Chatham 2 everything I would think right near
14 Chatham 2 and Harding 2 and the others there should be
15 green, should there not?

16 DR. EISENSTEIN: Just to -- this is not a
17 propagation map from the towers. Let's be clear. It
18 says down at the bottom in the legend it's a CW test.
19 So what they did is they put an antenna up at in this
20 case 80 feet, and it's broadcasting not a cell phone
21 signal but a continuous wave signal at a certain power.
22 The power that would normally come out if you were
23 using a different set of measurements, the RSSI
24 measurements.

25 So this is not giving you -- what you need

1 to do to see the effect of Chatham 2, Harding and
2 Morristown 3 and all those others you'd have to look at
3 the propagation plots, not this chart. This is only a
4 drive test based on the CW test.

5 CHAIRMAN FLANAGAN: Okay. And I just want
6 to make that point. I didn't understand and I want to
7 make sure that everyone else who is looking at this
8 understands. Given the other towers in the area there
9 is not necessarily a negative 110 over there by Chatham
10 2, right. This is simply showing what the signal
11 strength is from one isolated tower, which is not in
12 reality what's going to happen. Really I think what we
13 need to consider is what is the coverage going to be
14 given all the towers. And I know this has been
15 presented in other charts. I just want to make it --
16 you know, it just occurred to me so I want to make it
17 clear to everyone else. This chart to me isn't that
18 helpful. I think the one I want to see is the
19 propagation chart.

20 DR. EISENSTEIN: Mr. Chairman --

21 CHAIRMAN FLANAGAN: Yes.

22 DR. EISENSTEIN: Mr. Chairman, you just hit
23 the nail on the head. And that's why at hearing after
24 hearing I have said many times I like the propagation
25 charts better than a drive test data. And you just hit

1 exactly the reason. What you're getting from this
2 particular test is not even the test of what the signal
3 would be like from the tower. What you're getting is
4 exactly what it says, a CW test. This is giving you a
5 measure of what the propagation would be at different
6 heights.

7 So I wouldn't take these as an absolute
8 number. What I would do is I would use this to compare
9 80 feet to 100 feet to 120 feet. That's the way I
10 would use this. Not to say this is going to be the
11 coverage from a cell phone tower. It's a different
12 signal.

13 MR. SCHNEIDER: I don't disagree at all
14 with Dr. Eisenstein. Let me just make one final
15 comment, Mr. Chairman, just to put it in some
16 perspective vote, and I think Alf raised the question.
17 I just want to provide the background.

18 With all due respect, it was Mr. Simon who
19 had asked for this particular date. The request that
20 is shown on these exhibits was not coming from the
21 Board. The request came from Mr. Simon who was, with
22 all due respect, frankly suggesting that just showing
23 it in green and gray didn't present the full picture
24 without the actual numerical data points. He was
25 essentially suggesting it doesn't provide an accurate

1 assessment because it would be in gray if it was 95.1
2 versus green. That's the origin of what we were asked
3 to present.

4 So last month we presented the existing
5 data, and this month we're presenting the proposed
6 test -- the proposed test data. That's really the
7 origin of what was being asked.

8 So you and Dr. Eisenstein are correct.
9 This doesn't paint the picture. It was simply in a
10 response that there shouldn't be just a bright
11 demarcation line between green and gray but to show the
12 actual signal strengths within the respective green and
13 gray, if that kind of makes any sense.

14 CHAIRMAN FLANAGAN: No, understood and I
15 understand the request. And I think it's important for
16 me to recognize, in those areas down near Chatham 2 or
17 near any of the other towers you may well have a green.
18 If you were to measure the actual reception at any of
19 those points to the other towers, certainly around the
20 area of the existing towers it's not going to be all
21 gray.

22 DR. EISENSTEIN: Mr. Chairman, not with
23 this test. This test does not tell you what you just
24 said.

25 CHAIRMAN FLANAGAN: Understood. But in

1 reality --

2 DR. EISENSTEIN: You're correct, the new
3 Chatham 2 right near the tower it would not be neg
4 whatever it is. That is only for this test, the CW
5 test.

6 CHAIRMAN FLANAGAN: Right. But Dr.
7 Eisenstein, we're just --

8 DR. EISENSTEIN: What this is showing is
9 the roll off in the propagation.

10 BOARD MEMBER NEWLIN: But we're confirming
11 something just very simple. I had the same question.
12 The Board members, including us, need to be careful
13 that this is just this one tower and doesn't take into
14 effect any other towers, and therefore we should
15 withhold our questions about propagation until we get
16 there.

17 DR. EISENSTEIN: Well, you've already been
18 there because you've seen the propagation plots. So
19 the propagation plots which are the, you know, there is
20 a sea of green-type plots holding one up over here.
21 You've seen them all. And that shows the propagation
22 for Chatham 2 which shows propagation from all the
23 other sites. That's cell phone data. That's what it
24 would look like from the viewpoint of a cell phone.
25 This was only done from the point of view of saying if

1 we're at 80 feet, 100, or 120 feet what's the
2 difference? What's the roll off? What do you lose?

3 So they set up a tower, a crane or
4 something, they broadcast a signal, which is not a cell
5 phone signal, it's what you would call a CW signal, and
6 they measure signal strength. So if you want to know,
7 if they came back ten minutes later after doing this
8 test the numbers would all be different again. You're
9 not going to get the same numbers twice on a wireless
10 signal, because it's a random variable. It doesn't
11 ever occur twice.

12 So if you're looking at the area around
13 Chatham 2, those numbers they're going to be low but
14 they're not going to be those numbers, of course not,
15 from a cell phone site that would be right there.

16 MR. SCHNEIDER: Just to put a bow on that,
17 if we referred to Frances previous report that would
18 show the existing coverage from each of the respective
19 sites right below, right near Chatham 2, Harding 2, et
20 cetera, Morristown 3 Relo. That would show the
21 existing coverage from those sites.

22 CHAIRMAN FLANAGAN: That's fine. That's
23 helpful. And I'm not going to speak for Mr. Simon. I
24 think what he probably was looking for, which I'm not
25 suggesting we need, but would have been a propagation

1 chart showing what the actual signal strength was
2 rather than simply showing green and/or nothing. I
3 think it's just blank in other cases, right, including
4 from all the towers a propagation chart.

5 All right. Enough of that for a moment.
6 Can I ask just for a procedural thing? I forgot to
7 take a break last meeting? Does anyone want to take a
8 break now? Where are we with -- we're still in the
9 middle with Ms. Boschulte. Do you want to go and
10 finish Ms. Boschulte and we'll take a break, Mr.
11 Schneider? What's your preference?

12 MR. SCHNEIDER: I probably have about,
13 subject to the Board's questions, probably have about
14 ten, 15 minutes more of direct. So I'll defer to you.

15 CHAIRMAN FLANAGAN: Okay. Why don't we do
16 that. Why don't we finish that up. Mr. Simon, does
17 that work for you as well? We'll take a break after
18 Ms. Boschulte is done with her direct testimony?
19 (Pause.) Okay. I'll take that as a yes.

20 MR. SIMON: Can you hear me or no?

21 BOARD MEMBER NEWLIN: Yes.

22 CHAIRMAN FLANAGAN: We can hear you now,
23 yes.

24 BOARD MEMBER NEWLIN: Vaguely.

25 MR. SIMON: I said of course.

1 CHAIRMAN FLANAGAN: Okay. Mr. Schneider,
2 I'm sorry. So if you'd like to continue.

3 MR. SCHNEIDER: That's okay.

4 BY MR. SCHNEIDER:

5 Q. So Frances, let me put a bow on it. I
6 think you've given your testimony, and I think we
7 probably beat this up insignificant degree. So let me
8 conclude on this line of questioning with the
9 following: Without rehashing that which you testified
10 to previously, with respect to Exhibits Z-3, I'm sorry,
11 with respect to that which is shown on Z-3 through Z-8
12 reflecting the signal strength data points based on the
13 test conducted on March 3rd, 2020, does that in any way
14 change your opinion that you previously articulated as
15 to the requisite height that Verizon needs for this
16 site?

17 A. No, it doesn't.

18 Q. Okay. Let's move on, if I may then, to
19 paragraph three of your report. And you've captioned
20 that as response regarding drop-call data. Let me --
21 like I did the last time, let me put some context into
22 what you've been asked to produce and why you were
23 asked to produce it.

24 You testified in response to Mr. Simon's
25 cross-examination he asked you whether you had any

1 "dropped call information"; correct?

2 A. That's correct.

3 Q. And in response -- and you indicated that
4 you believe that such information was available but you
5 needed to confirm that with Verizon. Did you, in fact,
6 make inquiry to Verizon as to the existence of what he
7 referred to as "dropped call information"?

8 A. Yes, I did. I did inquire and request that
9 dropped call data be sent where I could then look at
10 the data and provide the charts in the report.

11 Q. Okay. Before we get to the charts, and I
12 want to save three or four questions for Mr. Simon.
13 The information that you reflected on -- we'll get to
14 in a minute, Z-9 through Z-12, that's not information
15 you independently presented but that was information
16 provided to you by Verizon; is that correct?

17 A. Yes.

18 Q. Okay. And let me, so we don't confuse
19 terms. It was previously referred to as "dropped call
20 data," but you, I believe, have referred to it as
21 dropped connections. And correct me if I'm wrong, the
22 distinction is that we're not just talking about
23 dropped calls but we're talking about dropped data
24 connections; correct?

25 A. Correct. It's data and voice.

1 Q. Okay. And how are you defining dropped
2 connections?

3 A. It's defined by any time someone initiates
4 a connection and they are actually assigned a resource.
5 And once they are assigned a resource for any reason
6 that connection is not maintained and the connection is
7 lost it is considered a dropped call.

8 Q. Okay. So that -- and Dr. Eisenstein may
9 want to comment on this later -- that is assuming that
10 the connection is already initiated but then is
11 dropped; correct?

12 A. That is correct.

13 Q. And that's an important distinction. And
14 you have the information based on both frequency bands
15 in question; correct?

16 A. Yes.

17 Q. Okay. Now, in paragraph three of your
18 report, and ultimately on Sheets Z-9 through 12, you
19 individually referenced certain sites and certain
20 sectors. Can you explain why you chose those four
21 sites and those four sectors?

22 A. Well, it would only make sense to provide
23 data for sectors that are actually pointing into
24 Harding and towards the proposed location for the
25 proposed DPW site. So the sectors point -- I provided

1 the azimuth as well, the azimuth gives the direction in
2 degrees of where it's pointing, and those sectors that
3 are serving in that particular area are the charts that
4 have been provided.

5 Q. Okay. So for a lay person like me these
6 are essentially the four sites in the four sectors that
7 are directed toward the area in question, and obviously
8 excludes the sectors from the other sites that are
9 pointing in different directions other than the area in
10 question; correct?

11 A. Yes.

12 Q. Okay. And those four sites are the Basking
13 Ridge north site, which is the actual Verizon
14 headquarters, the Harding 2 site, the Morristown 3 Relo
15 site which is the site located on James Street, and the
16 Chatham 2 site which is the one at the Green Village
17 Fire Department; is that correct?

18 A. Yes.

19 Q. And you've indicated the respective sectors
20 applicable to each of those four sites; is that
21 correct?

22 A. Yes.

23 Q. Okay. And I noticed, just to put some
24 further content into the background, that you used as
25 part of your analysis a very recent two-month time

1 period, that being from November 14th, 2020 to
2 January 11th; is that correct?

3 A. Yes.

4 Q. Okay. And I think stating the obvious, you
5 chose to use that because that's the most recent data
6 that is available; is that correct?

7 A. Yes.

8 Q. Okay. I know Dr. Eisenstein and you had
9 certain communications about this, and you responded to
10 his reasonable request, and you've indicated on each of
11 those charts the actual dropped calls by particular
12 frequency band as reflected in the legend; is that
13 correct?

14 A. Yes, I have.

15 Q. Okay. So with that specific background in
16 mind, and again understand that we are only talking
17 about dropped calls as distinguishable from, let's say,
18 blocked calls where you can't even initiate the call,
19 can you take us through Z-9 through Z-12?

20 A. Yes.

21 MR. SCHNEIDER: Lori, maybe it would be
22 easier if you can start it on Page 13, I believe,
23 correct, Frances?

24 THE WITNESS: Yes.

25 Q. I'll try not to interrupt you.

1 MS. TAGLAIRINO: Is that good, Frances?

2 THE WITNESS: Yes. This is fine.

3 This is the LT drop numbers Basking Ridge
4 North. The alpha sector points 56 degrees, which
5 points towards Lees Hill. And you can see that the
6 number of drops ranges from anywhere of 500 to as high
7 as a little over 1,300. You do see an increase over
8 the holiday period for Thanksgiving and Christmas, and
9 then things seem to go back to normal around the
10 500-drop number range.

11 Q. And that -- go ahead. I'm sorry.

12 A. So if you notice on the right-hand side you
13 have the different frequencies. In blue you have the
14 channel which is 1100. That refers to the
15 1900 megahertz band. In oranges you have the 2050
16 channel which is Verizon's 2100 megahertz band. And
17 then the 5230 channel is Verizon's 700 megahertz band.

18 Now, when you look at this you typically
19 would expect for an area that has poor coverage. The
20 700, as you know, propagates further. So it's covering
21 a much wider footprint, and users that are in the more
22 toward the coverage edge would be in the 700 megahertz
23 band, not in the 1900 or 2100 megahertz band. Those
24 frequency bands have a much smaller footprint, and so
25 the traffic that's being generated by the users are

1 closer to the cell site.

2 Q. So for a lay person like me then am I
3 interpreting the chart that for dates in, let's say,
4 early December, as the case may be, there are between
5 voice and data numbers that are approaching -- in just
6 actual numbers that sector is dropping up to close to
7 1,400 calls per day, either 1,400 either calls or
8 connections per day; correct?

9 A. Yes. From 500 to 1,400. Yes.

10 Q. And taking out through what's reflected on
11 9B which is page 14?

12 A. Z-9B is basically the percentage which is
13 the drop numbers divided by the total number of
14 connections, data connections made. So -- you don't --

15 SECRETARY TAGLAIRINO: You don't want page
16 14?

17 THE WITNESS: Yes. That's fine. So you
18 will see that you have a dropped percentage anywhere
19 between a little over one percent up to as high as four
20 percent.

21 BY MR. SCHNEIDER:

22 Q. And take us through the rest of the
23 analysis, if you would?

24 A. You continue down to page 15 we have
25 Harding 2. The sector azimuth is 125 degrees so you're

1 looking about southeast from the 287 location. And
2 again you can see that for the time frame from November
3 to January there are dropped calls anywhere between
4 close to 1,000 to a little bit above 2,500, between
5 2,500 and 3,000.

6 Q. Per day? That's per day?

7 A. Yes.

8 Q. Okay.

9 BOARD MEMBER NEWLIN: Question for
10 clarification. Azimuth of 125 degrees that refers just
11 to one of the antennas, is that correct? That's what
12 it means?

13 THE WITNESS: Yes. It's the -- correct.

14 BOARD MEMBER NEWLIN: So basically this is
15 one antenna that you're getting data for. And
16 presumably there's at least a couple other antennas on
17 the tower, this is just the one that's relevant; is
18 that what you're saying?

19 MR. SCHNEIDER: Just to clarify, it would
20 be one sector of antennas, wouldn't it be Frances?

21 THE WITNESS: Yes. So this is the --

22 BOARD MEMBER NEWLIN: One sector. Okay.
23 Yes.

24 THE WITNESS: This is the sector that's
25 pointing toward Harding.

1 BOARD MEMBER NEWLIN: And just for sake of
2 context, there's three sectors or --

3 THE WITNESS: There are three sectors.

4 BOARD MEMBER NEWLIN: Total. Okay. Thank
5 you.

6 THE WITNESS: Total. And they typically --
7 a typical scenario would be like 30, 150, 270. So you
8 would have three different azimuth directions. This
9 direction is pointing at 125 degrees which is toward
10 Harding.

11 BOARD MEMBER NEWLIN: Okay. Thanks.

12 BOARD MEMBER ROSENBAUM: Mr. Mlenak, is
13 there another slide that talks about why there was the
14 increase in dropped percentage calls on, what is it,
15 picture 9B? Is it a function of volume? And is the
16 system capacity constrained? And if it is then are we
17 going have that problem going forward if this
18 application was approved?

19 THE WITNESS: So this is more to deal with
20 not capacity constraints but the fact that the
21 700 megahertz is covering further away from the site
22 and it's dropping because there is insufficient signal
23 and not another cell site with better signal to hand
24 off to. So basically --

25 BOARD MEMBER ROSENBAUM: I appreciate that.

1 If we go back to, I guess the prior one, 9B, please
2 Lori. There you go. So here you have an increase in
3 percentage?

4 THE WITNESS: Yes.

5 BOARD MEMBER ROSENBAUM: But what
6 conclusions can be drawn from the increase in
7 percentage? Someone talked about a drop rate of two
8 percent being important per our legislation or our
9 regs, so why the increase? Are more people home and
10 using, you know, calls and stuff like that? In which
11 case, you know, again, I would think we're at capacity
12 is constrained. And if so is that solved by using
13 different bandwidth or something else?

14 Basically, we're talking about one cell
15 tower or two cell towers, so we need to have higher
16 with more antennas. That's really where I'm going with
17 this line of questioning.

18 DR. EISENSTEIN: If you look at that peak
19 you'll notice on Christmas Day you see down at the
20 bottom it's 12/25. And my sense is that there were a
21 lot more calls on that day and as a result the network
22 did get crowded at 700 and there was no higher band to
23 pass off to so it drops the call.

24 So it's a function of the volume and the
25 fact that there's no hand-off band.

1 CHAIRMAN FLANAGAN: But to Aric's point, is
2 that problem solved by adding another tower? It seems
3 that whatever the two percent, whatever the acceptable
4 percentage of dropped calls it is, but is -- it seems
5 as if the tower's reaching the consumer, the user, and
6 it's just when there's too many phone calls going on
7 like on Christmas Day that it can't handle it. So
8 wouldn't that be handled by increasing the capacity at
9 the existing tower as opposed to adding a new tower?

10 Aric, was that the point you were going
11 for?

12 DR. EISENSTEIN: That's not the way it
13 works.

14 BOARD MEMBER ROSENBAUM: That's related to
15 the question, Michael, but my point is, if we were to
16 approve the cell tower it would be like-for-like, in
17 which case we would still -- yes, the propagation would
18 be different, but we may still be capacity constrained,
19 in which case initial approval may lead to a request to
20 add more antennas or add more height so we can add more
21 antennas. And that's kind of what I'm trying to
22 understand.

23 DR. EISENSTEIN: Just to be clear, this is
24 not a capacity site. We're not talking about capacity.
25 Capacity sites occur when you have plenty of coverage

1 but too many users. This is not a case of too many
2 users. What's happening is this Basking Ridge north
3 56-degree azimuth, which is the one that's on the
4 screen right now, on Christmas Day there were are a lot
5 of callers that had initiated the call when they were
6 close to the Basking Ridge tower. So they had plenty
7 of capacity. The call was initiated. Then they're
8 driving perhaps towards Harding and the call drops
9 because there's no power, there's no adjacent tower and
10 there's no other band to hand the call off to.

11 So if you look down at the bottom you'll
12 see almost no dropped calls from the 1900 or 2100 band.
13 Do you see down the orange and the blue? The reason is
14 those calls were never initiated.

15 BOARD MEMBER NEWLIN: So a new tower would
16 help that issue?

17 DR. EISENSTEIN: Exactly.

18 BOARD MEMBER NEWLIN: That was the
19 question, I think.

20 DR. EISENSTEIN: The new tower would
21 provide a hand-off point so that when they're in the
22 700 megahertz range and they're driving now they can
23 hand off to the next tower, which is why you have to
24 have some overlap in your tower coverage.

25 BOARD MEMBER NEWLIN: So why the difference

1 in percentages? You're saying just -- I guess I still
2 don't understand that. Why are you going to get
3 spikes? I think also Aric was asking that.

4 DR. EISENSTEIN: I think it's because their
5 volume went up on those days.

6 BOARD MEMBER NEWLIN: These are percents,
7 right?

8 DR. EISENSTEIN: No, but in the previous
9 slide look at the number.

10 BOARD MEMBER NEWLIN: Why would the percent
11 change, Dr. Eisenstein?

12 DR. EISENSTEIN: The percent is going to
13 change because when the volume goes up -- maybe if you
14 go to the previous slide. Let me just calibrate this.
15 Go to page 13. See how the volume went way up? That's
16 the actual number of -- now my sense is that, with that
17 number of calls the system was unable to make the
18 handoff that it needed to retain the call. Remember,
19 this call was initiated somewhere else. It wasn't
20 initiated in the zone where it's dropping. We don't
21 know where this call dropped. We don't know where the
22 vehicle was. I assume it was a vehicle. We don't know
23 where it was when the call dropped. What we know is
24 that it was initiated near the Basking Ridge North
25 alpha sector. That's what we know. That's where the

1 call initiated and we know it dropped at some point,
2 and we know almost 1,400 of them dropped.

3 So why did they drop? They dropped because
4 that 1,400 calls, or however the number was, what is
5 that, four percent? The other 96 percent were able to
6 be retained and handed off or they terminated
7 voluntarily.

8 You know, I don't want to get into this
9 now, maybe Frances will get into it later. One of the
10 things with the dropped call is it's difficult to
11 determine the difference between someone driving along
12 and they keep saying I can't hear you. I can't hear
13 you. I can't hear you. I'm going to hang up and call
14 you back later. That may not be a dropped call, but
15 just before they said I can't hear you, I can't hear
16 you the call terminates that's a dropped call. But
17 they were on the verge of hanging up anyway.

18 So the percentage I think is just because
19 you have volume way up there and as a result you have
20 more dropped calls.

21 CHAIRMAN FLANAGAN: Alf and Aric, I'm with
22 you a hundred percent on the question, because what
23 we're saying is, what I've heard is, these are calls
24 that originated near the Basking Ridge tower, and they
25 were dropped somewhere along the lines. And there is a

1 higher incidence of dropped calls when there's more
2 volume. All right.

3 So that says to me, that says to me though,
4 that issue is not going to necessarily be solved by a
5 new tower. Let me take that back. If there was more
6 capacity at the Basking Ridge tower, I don't know what
7 the right term is, then you would have a less, a lower
8 incidence of dropped calls, right? That's exactly what
9 we're saying. We're saying -- you know, when there's
10 fewer number of calls then the percent dropped is lower
11 than if you have a lower greater number of calls,
12 right? That speaks to a capacity issue at that Basking
13 Ridge tower, rather than anything else. That's the
14 way --

15 THE WITNESS: That's not --

16 MR. SCHNEIDER: Frances, can you clarify
17 that what's shown is not a function of capacity as Dr.
18 Eisenstein indicated, but it's a function of signal
19 strength? Can you clarify that?

20 THE WITNESS: Yes. I think it's important
21 to note that the coverage footprint of the 700 is
22 further away from the site. And with that in mind
23 there are users in that footprint that's only in the
24 700 megahertz footprints. Doesn't mean that there
25 isn't enough resources to support, but it indicates

1 that, 1), as users are moving through the 700 megahertz
2 there is a lack of signal strength due to a lack of
3 another site there to serve.

4 CHAIRMAN FLANAGAN: Why is the signal --
5 and I'm sorry to interrupt you, but I truly want to
6 understand this. Then why is the signal strength
7 sufficient -- or why is the signal strength better when
8 there are fewer calls placed?

9 So why is your percentage dropped only
10 around two percent when you have 600 calls placed, but
11 it's twice that when you have 14? What explains that?

12 THE WITNESS: I think you're confusing.
13 The 600 is not calls placed, but it is --

14 CHAIRMAN FLANAGAN: It's calls dropped?

15 THE WITNESS: It's calls dropped.

16 CHAIRMAN FLANAGAN: All right. That helps.
17 But I think we did say, hey, on Christmas there was a
18 much higher percentage dropped and then the reason for
19 that was because there was much more -- or maybe I
20 interpreted it.

21 BOARD MEMBER ROSENBAUM: If we know that
22 there are almost 1,400 dropped calls and the percentage
23 is one of the highest, we know there are more calls.

24 CHAIRMAN FLANAGAN: So can somebody do the
25 math for me? So 1,400 is four percent of --

1 DR. EISENSTEIN: The answer has to do with
2 the signal strength. You have a finite amount of
3 signal coming out of that sector from Basking Ridge.
4 When you have more users the amount of power that's
5 available to each users is diminished.

6 CHAIRMAN FLANAGAN: Right. So if you
7 increased the power at the Basking Ridge site --

8 DR. EISENSTEIN: You're not allowed to.
9 Let's stop that discussion there. You're not allowed.
10 It's fixed by FCC. They put out the power that they're
11 allowed to put out.

12 CHAIRMAN FLANAGAN: Understood. This is
13 answering my question. This is very helpful.

14 So in theory if one was allowed to increase
15 the power then the system would be able to accommodate
16 more calls, then you --

17 DR. EISENSTEIN: No, but --

18 CHAIRMAN FLANAGAN: But can't change the
19 power. I understand you can't.

20 DR. EISENSTEIN: It's a non-issue.

21 CHAIRMAN FLANAGAN: I you understand, but I
22 just want to understand the logic of it.

23 If you were to increase it you would expect
24 that you would see fewer dropped calls while the total
25 call volume was higher. You can't increase it.

1 DR. EISENSTEIN: The technical term for
2 this is cell shrinkage. Because what happens is as you
3 get more users the effective footprint of the cell at
4 all frequencies keeps shrinking simply because the
5 power is now divided among more users. It's just
6 common sense.

7 It's not linear, by the way. It's highly
8 nonlinear. But nevertheless that's a factor in there.
9 Then what happens is what the system would like to do
10 is first hand off to the sector that it's in to either
11 the 1900 or the 2100. That's what it would like to do
12 first. That's not available because there's no power
13 at that distance. One assumes this is at a distance.

14 The next thing it would like to do is hand
15 off to an adjacent tower that has more power available
16 to it. And that's what would happen. So roughly
17 speaking halfway in between each of the towers there's
18 a hand-off area. So as you're driving along you start
19 losing signal, and then when you get to the next tower
20 you pick up signal.

21 You remember what I said before about the
22 design of these systems. One of the things that you'd
23 like to do, when we talk about the power like in the
24 previous slides, the neg 95, you're not really talking
25 about power because the power is fixed from the tower.

1 What you're really talking about is distance. So what
2 you'd really like to have is the tower is located in
3 such a way that at the halfway point the signal has not
4 diminished to the point where the next tower can't pick
5 it up. That's what you'd like to have. Then the call
6 won't drop. Then what will happen is the call will
7 continue to operate. It will just hand off to the next
8 tower. So an additional tower does help in this case
9 because these are the dropped calls in the direction of
10 where this new tower would be.

11 MR. SCHNEIDER: So Frances, following up --
12 go ahead. I'm sorry.

13 CHAIRMAN FLANAGAN: Dr. Eisenstein, thank
14 you for that. That makes sense. You said it before.
15 The reason the power on the existing antennas cannot be
16 increased is because there's a limit placed on it by
17 the FCC or whoever governs this stuff; is that correct?

18 DR. EISENSTEIN: That is correct.

19 MR. SCHNEIDER: And the other reason,
20 essentially, I don't want to weigh in on Dr.
21 Eisenstein's expertise, but there's essentially,
22 Frances, am I correct, that there is -- using Dr.
23 Eisenstein's example, when you get to that halfway
24 point you can't transition to the other tower because
25 there's no tower providing the requisite signal

1 strength; correct?

2 THE WITNESS: Correct.

3 MR. SCHNEIDER: Okay. But if essentially
4 Harding 3 was approved that situation would be
5 alleviated; correct?

6 THE WITNESS: The dropped -- yes.

7 BOARD MEMBER ROSENBAUM: One follow-on, as
8 well. The presumption here is that these are people in
9 cars moving between towers. There's no way to measure
10 how many people are stationary making calls within
11 their house, or is the presumption that that is
12 minimal?

13 THE WITNESS: They're all included in this
14 number.

15 BOARD MEMBER ROSENBAUM: But there's no way
16 to differentiate the two?

17 THE WITNESS: No.

18 DR. EISENSTEIN: And there's also no easy
19 way to know where the call was dropped. So it would be
20 nice to know how far from the tower they were when the
21 call dropped, but we don't know that. The presumption
22 is that they were in a weak signal area. It's very
23 improbable to drop a call in a strong signal area. Not
24 impossible.

25 BOARD MEMBER ROSENBAUM: You would know

1 directionally, because of the 56 degrees that it's
2 heading towards us, as opposed to --

3 DR. EISENSTEIN: It's heading towards you.

4 And I'll tell you something else we know.

5 It was not initiated in Harding and driving towards
6 Basking Ridge. The reason we know that is because the
7 call was initiated under this tower's auspices.

8 BOARD MEMBER ROSENBAUM: Sorry. Initiated
9 or the last good signal was --

10 DR. EISENSTEIN: Well, you're right. It
11 could have been initiated in California and they're
12 just driving through and they were able to do the
13 handoff all the way.

14 From the point of view of a dropped call,
15 though, Basking Ridge had that call under their control
16 and it was moving -- I assume moving away from Basking
17 Ridge to a low power area.

18 BOARD MEMBER ROSENBAUM: Thank you, Dr.
19 Eisenstein. That's super helpful.

20 MR. SCHNEIDER: Frances, just maybe
21 concisely, because it follows the same format.

22 Can you take us through Z-11 and Z-12?

23 THE WITNESS: Yes.

24 SECRETARY TAGLAIRINO: Is that it?

25 THE WITNESS: Z-11, yes. This is

1 Morristown 3, the gamma sector. This has an azimuth
2 direction of 155 degrees. So again, as you can see --

3 In this particular case you have high drop
4 numbers, not just on the 700 megahertz but also on the
5 2100 megahertz. This cell site is located next to the
6 medical building and the office building across the
7 street.

8 And also I noticed that the increase again
9 happens to occur during Thanksgiving in the holiday
10 time. So again this is an indication that users that
11 are also in the area coming from 287 down into Harding
12 are experiencing high dropped call numbers, loss of
13 data connections.

14 The next slide represents the drops in
15 terms of percentages where you can see that the -- it's
16 hard to see. The dropped percentages range from half a
17 percent up to close to 1.5 percent. Okay.

18 The next exhibit is Chatham 2. It is the
19 gamma sector azimuth 310 degrees. As you notice there
20 are only two channels here. This is -- in gray is the
21 700 megahertz channel, and in blue is 2100 megahertz
22 channel. You do not see the 1900 megahertz channel
23 because there isn't a need for it due to its low
24 traffic and small coverage footprint. So it doesn't
25 get that far in respect to coverage, but you do see

1 again due to the poor signal strength at the
2 700 megahertz as you are moving away from Chatham there
3 are loss in data connections anywhere that ranges from
4 300 up to 900.

5 The next slide represents Chatham 2 gamma
6 in respect to percentage. And that ranges again
7 anywhere a little over one percent up to three percent.

8 BY MR. SCHNEIDER:

9 Q. Lastly, in this particular area, Frances, I
10 just want to clarify that these numbers in percentage
11 are only relating to dropped connections and does not
12 include -- I repeat does not include a call where a
13 Verizon subscriber did not have the ability to initiate
14 the call due to poor signal strength; is that correct?

15 A. Correct. This represents a user who was
16 able to initiate but unable to maintain.

17 MR. SCHNEIDER: Mr. Chairman, I said ten or
18 15 minutes before the next break, and I still have some
19 other things. So unless there's anything that Dr.
20 Eisenstein or anybody else has on this particular
21 subject area now may be the appropriate time out of
22 fairness to the Board --

23 CHAIRMAN FLANAGAN: Yes.

24 MR. SCHNEIDER: -- you know, come back at a
25 certain time, but I do have some other questions. But

1 maybe if we want to just wrap up this particular
2 subject area before moving on.

3 CHAIRMAN FLANAGAN: Yes, I'd like to do
4 that before we get on to the ODAS discussion. But
5 before we -- does anyone from the Board or Dr.
6 Eisenstein have any other questions related to the
7 dropped call data?

8 MR. MLENAK: Mr. Chairman, I have a few
9 questions. Just very foundationally.

10 Ms. Boschulte, did you testify about the
11 origin of this data? Did you prepare these charts?

12 THE WITNESS: I did prepare these charts.

13 MR. MLENAK: And from what data did you
14 pull -- can you explain where you pulled the data from
15 to prepare these charts?

16 THE WITNESS: Verizon's performance
17 engineer provided me with the data in the form of an
18 excel spreadsheet. I used pivot tables to represent
19 this data.

20 MR. MLENAK: Okay. So this is your
21 product?

22 THE WITNESS: Yes.

23 MR. MLENAK: Okay. That's all.

24 CHAIRMAN FLANAGAN: So with that said, why
25 don't we take a ten-minute break here. So we'll be

1 back at 9:08 -- I'm sorry. 10:08 sharp. Let's take a
2 ten-minute break and we'll be right back.

3 (Recess is taken at 9:58 p.m.)

4 (Back on the record at 10:08 p.m.)

5 CHAIRMAN FLANAGAN: Okay. Let's take a
6 roll call.

7 SECRETARY TAGLAIRINO: Okay. I'm going to
8 take the roll again as we are back from the meeting.
9 Mr. Rosenbaum?

10 BOARD MEMBER ROSENBAUM: I am here.

11 SECRETARY TAGLAIRINO: Did you say you were
12 here?

13 BOARD MEMBER ROSENBAUM: I am here.

14 SECRETARY TAGLAIRINO: Oh, there you are.
15 Thank you. Mr. Maselli?

16 BOARD MEMBER MASELLI: Sorry. I was muted
17 here.

18 SECRETARY TAGLAIRINO: Ms. Sovolos?

19 BOARD MEMBER SOVOLOS: I am here.

20 SECRETARY TAGLAIRINO: Thank you. Mr.
21 Cammarata?

22 BOARD MEMBER CAMMARATA: Here.

23 SECRETARY TAGLAIRINO: Thank you. Mr. Boyan?

24 BOARD MEMBER BOYAN: Here.

25 SECRETARY TAGLAIRINO: Mr. Addonizio.

1 BOARD MEMBER ADDONIZIO: Here.

2 SECRETARY TAGLAIRINO: Mr. Symonds?

3 BOARD MEMBER SYMONDS: Here.

4 SECRETARY TAGLAIRINO: Oh, my gosh, I was
5 looking off of two lists, so now I'm not sure. Mr.
6 Newlin?

7 BOARD MEMBER NEWLIN: Here.

8 SECRETARY TAGLAIRINO: Mr. Flanagan?

9 CHAIRMAN FLANAGAN: I am here.

10 All right. So do we have Mr. Simon back?
11 There we go. All right. Go ahead. I'm sorry.

12 SECRETARY TAGLAIRINO: Is Steve Mlenak
13 here?

14 CHAIRMAN FLANAGAN: So Mr. Schneider, why
15 don't we pick it up again. We're going to wrap this up
16 at eleven o'clock sharp tonight. So why don't we just
17 plan on leaving five minutes towards the end so we can
18 discuss whatever we need to discuss regarding future
19 meeting dates, et cetera. Does sound fair?

20 MR. SCHNEIDER: Absolutely. Frances, are
21 you back?

22 CHAIRMAN FLANAGAN: I saw her.

23 THE WITNESS: I am.

24 BY MR. SCHNEIDER:

25 Q. Okay. Frances, thank you. I want to move

1 now, if I may, to Section Four of your report, which is
2 entitled Verizon's ODAS conceptual plan highlighting
3 the phrase conceptual.

4 Let me, if I can, just like I did in the
5 other two areas set forth some parameters and
6 assumptions relative to that, and specifically Z-14.

7 At the December meeting at its conclusion,
8 and I think the Chair specifically, requested that we
9 come forward with a conceptual plan for the proposed
10 ODAS compliment to the macro site. And the Chair
11 specifically requested that we focus our presentation
12 on what is presently designed conceptually regardless
13 of whether it had been submitted or whether it had gone
14 through any formal review processes with the township.

15 So with that direction, did you have
16 occasion to prepare a conceptual ODAS plan to
17 compliment the what I'll call the macro site, that
18 being the proposed tower at the DPW property?

19 A. Yes.

20 Q. Okay. And to highlight the conceptual
21 nature let me ask you a couple of things: You have
22 not, just so we can save ourselves a lot of questioning
23 from Mr. Simon, you have not undertaken specific formal
24 due diligence as to the technical ability to implement
25 the conceptual plans as they may specifically relate to

1 whether they are all specifically located within public
2 right-of-ways, whether they involve utility poles,
3 and/or whether they would be permitted under Harding
4 Township's right-of-way ordinance as it relates to this
5 particular type of technology; is that correct?

6 MR. MLENAK: Did we lose her? I'm not even
7 seeing her square anymore.

8 THE WITNESS: I'm back.

9 MR. SCHNEIDER: Did you hear the question
10 that I just asked?

11 CHAIRMAN FLANAGAN: Okay. There she is?

12 THE WITNESS: No, can you repeat that?

13 BY MR. SCHNEIDER:

14 Q. Sure. If I remember what I said.

15 The conceptual plan that you have
16 reflected, you have not done any formal due diligence
17 in that regard as to whether definitively these nodes,
18 as I'll refer to them, are located within the public
19 right-of-way, whether they would involve new or
20 existing utility poles, or whether in fact they would
21 be permitted under the Harding Township's ordinance as
22 they relate to such installations; is that correct?

23 A. Yes. No, not formally, yes.

24 Q. Okay. But you have done at least an
25 analysis strictly from an RF perspective as to where

1 the proposed nodes would be conceptually located as
2 requested by the Chair and collectively the Board; is
3 that correct?

4 A. Yes.

5 Q. And you've done that analysis essentially
6 based on an assumption, I'm hopefully optimistic, I
7 hope realistic, that a tower is approved at the DPW
8 both, or either at a height of 120 or 100; correct?

9 A. Yes.

10 Q. Okay. With those parameters in mind, and
11 let me take one step back, I think the Board based on
12 some prior discussion has a reasonable understanding of
13 what we are referring to as ODAS nodes, but perhaps in
14 a concise manner that all can understand let's discuss
15 briefly what is contemplated when we refer to as an
16 ODAS node for those who are not familiar?

17 A. Basically, it's a wireless transmitter
18 that's placed on top, or on an existing or new utility
19 pole. They are connected via a fiber and basically
20 they are typically in the height of between 25 and 35
21 feet. The equipment cabinets are usually either at the
22 ground or the pole itself.

23 Q. Okay. And I don't want to get into at this
24 point all of the issues concerning the ODAS nodes and
25 their reliability, et cetera, but strictly from a

1 technical perspective have you done an analysis of
2 where the nodes can be located to compliment the macro
3 site both at 120 and 100?

4 A. Yes. Well, the first exhibit, these
5 locations are based on Verizon's conceptual plan. And
6 as you can see --

7 Q. We're referring now to -- Lori, if you can
8 to Z --

9 A. Z-13.

10 MR. SCHNEIDER: Right. Which is I think
11 page 21, Lori.

12 SECRETARY TAGLAIRINO: Got it.

13 THE WITNESS: The ODAS nodes are indicated
14 by the triangles, the brown triangles. The proposed
15 location is identified by the pink circle in the center
16 of the map. And as you can see the conceptual ODAS
17 design has been placed to compliment the coverage
18 footprint from the proposed DPW.

19 Q. Okay. Now, that's Z-13, and that's based
20 on 120 feet at the DPW?

21 A. Yes.

22 Q. Okay. And what are your conclusions
23 relative to the -- to Z-13 as reflected on page 21?

24 A. Well, one I looked at not just the sense of
25 the propagation, but also in the terms of the terrain.

1 And as you can see toward Pleasantville Road you have
2 as you move south on Millbrook and approach
3 Pleasantville you have higher elevations to the west
4 and to the east. So the height of 120 seems to get
5 right down by Maryknoll. And you'll see right by where
6 the "G" is in Long Hill you have areas of white. And
7 that's because the terrain, you have a very tall ridge
8 of approximately 400 feet, and then once you go over
9 this ridge the signal is lost. And then you are picked
10 up by this conceptual ODAS solution.

11 Now, having driven along Pleasantville Road
12 it's heavily dense with trees. And based on the height
13 of the ODAS at 35 feet it doesn't see much -- it
14 actually sees into the hillside here. So that's why
15 you see the areas in white. There's an area where
16 there's going to be a very weak signal. It will make
17 it difficult to have any type of handover between the
18 proposed DPW site and this conceptual ODAS design.

19 Q. Okay. Now, turning your attention to Z-14,
20 that same analysis was done based on an anticipated
21 height at the DPW of 100 feet; am I correct?

22 A. Yes.

23 Q. Okay. And what are your corresponding
24 conclusions in terms of a conceptual design and
25 parameters of coverage?

1 A. There is a reduction between -- in the
2 residential area between Village Road and Pleasantville
3 Road you have more area of white. You also have more
4 area of white around Maryknoll Road. And to me that's
5 just an indication, because again the signal degrades
6 very quickly and rapidly and with the coverage
7 footprint of a conceptual ODAS the footprint's going to
8 be small. Again, it's going to degrade very rapidly.
9 It increases the inability to have a successful
10 handover between the proposed DPW site and the
11 conceptual ODAS design.

12 Q. Is there any realistic design from your
13 perspective as an expert in the field of radio
14 frequency, which would be -- which would be based on a
15 complete replacement of the macro site with an ODAS
16 solution?

17 A. Having looked at the area and just based on
18 the coverage footprint of the conceptual ODAS it's not
19 possible for the ODAS to replace the macro. If you
20 take a look over in the -- your northeast corner of the
21 map, and you have a kind of a similar situation you'll
22 see that Verizon has planned another conceptual ODAS
23 design near Red Gate Road and Van Beuren Road. And
24 you'll see again the terrain in the center where it's
25 white is where there's again a sharp change in

1 elevation. There's a ridge. And the ODAS coverage
2 footprint, due to the terrain, and the morphology and
3 the dense trees doesn't have a large footprint. So
4 again, you're going to have that coverage in the middle
5 where it's going to be deficient.

6 Q. Okay. Is there anything further that you
7 would like to add relative to the conceptual ODAS
8 design at this point, again, understanding that the
9 Board just asked for a conceptual plan and you're
10 responding to that particular request?

11 A. No.

12 Q. Okay. Last line of questioning as of now.
13 Board Member Newlin reasonably asked you last time to
14 provide some testimony as to the implementation of 5G
15 and how, if at all, it relates to the macro sites that
16 are planned in Harding Township. In response to that
17 request by Board Member Newlin have you reviewed that
18 inquiry and can you appropriately respond to his
19 inquiry in that regard?

20 A. Yes. I mean, Verizon is, you know, rolling
21 out their 5G, and depending on the final design of the
22 proposed will affect whether or not --

23 Q. Let me interrupt you a second.

24 A. -- will affect whether or not 5g is going
25 to be able to be implemented here. So the design --

1 Q. You froze there, so maybe I'll ask you to
2 repeat your answer. Go ahead.

3 A. Verizon is the in process of rolling out
4 5G. And it will depend upon the final determination of
5 the proposed design, whether or not 5G can be
6 implemented here.

7 Q. Okay. What are your -- what's your
8 professional opinion about the timing of the 5G and how
9 that would relate to the specific macro installation?

10 A. I don't foresee that happening right now.

11 Q. Is that something that would be
12 contemplated in the near -- that's a function of the
13 maturation of the network and the development of 5G
14 technology, is that a fair statement?

15 A. Yes.

16 MR. SCHNEIDER: Okay. Mr. Chairman,
17 nothing further on direct for Ms. Boschulte at this
18 time.

19 CHAIRMAN FLANAGAN: Okay. I have a few
20 questions. I think some others on the Board may. If
21 you don't mind I'll just roll right into it.

22 Ms. Boschulte, these conceptual ODAS plans,
23 who designed these, did you design these?

24 THE WITNESS: I did not. These are
25 locations that were provided from Verizon.

1 CHAIRMAN FLANAGAN: All right. So Verizon
2 had designed these I guess some time prior to maybe
3 even this application, but sometimes prior to us asking
4 for this, is that right?

5 A. I don't know -- I don't know how long --I'm
6 not sure when or how long they've been working on this
7 but when I requested --

8 BOARD MEMBER NEWLIN: Rich, we can't hear
9 complete answers.

10 A. I will repeat. I don't know how long
11 Verizon has been working on this plan when I requested
12 the design. This was their latest -- to reflect their
13 latest conceptual plan for the area for Harding.

14 CHAIRMAN FLANAGAN: Okay. Have you
15 designed ODAS systems? Is that a specialty, or is that
16 something that you work with as well?

17 THE WITNESS: This is something that my
18 company works with as well. I have participated and,
19 yes, designed ODAS.

20 CHAIRMAN FLANAGAN: Okay.

21 THE WITNESS: Can you hear me?

22 CHAIRMAN FLANAGAN: Yeah. You're breaking
23 up a little bit. I think we got the gist of the
24 answer. You can repeat it, but I think I heard you say
25 you've participated in your company's efforts to sign

1 ODAS systems. But I guess my question is, you
2 personally, you had some experience in the ODAS field;
3 is that correct?

4 THE WITNESS: Yes.

5 CHAIRMAN FLANAGAN: All right. So I look
6 at these plans and in both cases -- well, I guess
7 there's really only one ODAS plan from Verizon. I
8 think it's correct that there are the same number of
9 ODAS nodes on Z-14 as there are on it must be Z-13?

10 A. Correct.

11 CHAIRMAN FLANAGAN: So there's really one
12 ODAS plan that they have?

13 THE WITNESS: Right. The difference
14 between Z-13 and Z-14 is the proposed propagation
15 changing from the 120 feet to the 100 feet.

16 CHAIRMAN FLANAGAN: Okay. And I think, Mr.
17 Schneider remind me if I'm wrong, but I think you have
18 said that 120 feet would suit your purposes or would be
19 sufficient from Verizon's perspective; is that correct?

20 THE WITNESS: Yes.

21 CHAIRMAN FLANAGAN: Okay. Thank you. So
22 then if you were to have 120 feet would that mean you
23 would not need any of these ODAS systems, or any of
24 these ODAS sites, or is your ask that you had 120 feet
25 at the macro site and in addition you would want to do

1 these ODAS sites?

2 THE WITNESS: I think the plan is to have
3 the macro site, and then continue to provide coverage
4 in Harding to the other areas that are still not
5 meeting the requirement.

6 CHAIRMAN FLANAGAN: All right. Just so I
7 understand. So if you had 120 feet it's not that
8 Verizon would be satisfied with the coverage that it
9 received 120 feet, but Verizon would want to go on and
10 continue to add ODAS sites to fill in some spots. All
11 right.

12 Why on these plans are there the ODAS --
13 what do you call them, cells or sites? What's the
14 right word for that?

15 MR. SCHNEIDER: Nodes.

16 CHAIRMAN FLANAGAN: Nodes. Okay. Why are
17 the nodes only in areas they are? Why don't the nodes
18 continue down Blue Mill Road? I guess, you know, I see
19 some white areas there where James Street intersects
20 with Blue Mill. Why wouldn't you put nodes there? And
21 to go on in the other spots, right, but then going from
22 you can see where Youngs Road is right where it
23 intersects with Lees Hill Road at that point but down
24 Lees Hill past Fox Hunt, why wouldn't you put nodes
25 there?

1 THE WITNESS: So when I was doing my
2 evaluation I looked at this and I also looked at the
3 existing scan data that represented the LTE existing
4 coverage footprint, and I -- based on the proposed
5 propagation I would recommend putting a node at the
6 intersection of James and Blue Mill Road. I looked at
7 the scan test results and a node could be utilized
8 there, so that would be my personal opinion.

9 Looking down Lees Hill Road the scan test
10 results show that -- the scan test results show that
11 actually Basking Ridge north is covering up to almost
12 near Welch Drive near Long Hill Road. So I think an
13 ODAS node is probably not needed there if the proposed
14 at 120 does take place.

15 CHAIRMAN FLANAGAN: Oh, I'm sorry. So and
16 then I guess maybe -- let me make sure I understand
17 what I see. So is it correct that wherever there is
18 color then there is at least neg 95 coverage, whether
19 it be green, light blue or dark blue?

20 THE WITNESS: Yes. Except in previous
21 testimony I don't know if you remember that there were
22 areas that I indicated in the supplemental report that
23 an area that was under-predicted. So that area along
24 Lees Hill Boulevard was pointed out, Fox Hill Road was
25 actually being served by Basking Ridge North. So that

1 is actually covered.

2 CHAIRMAN FLANAGAN: So it shouldn't really
3 be white near Fox Hunt and on Lees Hill, I guess,
4 right? That should be green or whatever?

5 THE WITNESS: That's right.

6 CHAIRMAN FLANAGAN: Okay. If the tower
7 height were reduced to 80 feet what would the chart
8 look like then, right? I think you have -- you've done
9 propagations at 80 feet. I think you even have them in
10 this pack; correct?

11 THE WITNESS: Yes.

12 CHAIRMAN FLANAGAN: What page is that?

13 THE WITNESS: I'm not even sure -- no.
14 80 feet is not in this particular package.

15 MR. SCHNEIDER: Let me go back. I think
16 the Chairman's point was not whether you've designed
17 the ODAS at 80, but do we have the proposed coverage at
18 80 feet?

19 CHAIRMAN FLANAGAN: Right.

20 THE WITNESS: Not in this package. No.

21 BOARD MEMBER SYMONDS: Wait a minute.

22 BOARD MEMBER NEWLIN: You have C-5 has
23 80 feet.

24 THE WITNESS: Oh, the CW test, yes.

25 BOARD MEMBER NEWLIN: Yes. The CW test.

1 BOARD MEMBER SYMONDS: Page 8 is C-5, 80
2 feet 700 megahertz.

3 MR. SCHNEIDER: Right. Page eight.

4 CHAIRMAN FLANAGAN: I guess the question
5 is, if the tower height were 80 feet could nodes be put
6 on the roads to cover the gaps in that case?

7 THE WITNESS: So when I was looking at the
8 evaluation -- the answer is no. And it's difficult to
9 see that with the CW test, but you areas, the
10 propagation provides more detail because it's actually
11 showing you what happens in between the rows that
12 you're not going to see during a drive test.

13 So in the areas between, let's say, Village
14 Road and Pleasantville and Millbrook that residential
15 area actually loses coverage, and that's not going to
16 be able to be replaced by ODAS. The same thing happens
17 in the other area between Long Hill Road and Millbrook,
18 and that's not going to be able to be replaced in that
19 residential area with ODAS solutions. But also going
20 back to the CW test results, when we evaluated -- the
21 reason 80 feet wasn't included when we evaluated the
22 80 feet for the 2100 we lost coverage at the school
23 which we felt was important. And so we looked at
24 primarily -- I looked at primarily the 120 feet and the
25 100 feet.

1 CHAIRMAN FLANAGAN: And regarding the
2 school, though, couldn't you have put an ODAS system
3 right on the school property?

4 THE WITNESS: You mean --

5 CHAIRMAN FLANAGAN: I mean, if the school
6 wanted it. It would be up to them, I guess, but that
7 could be done, couldn't it?

8 BOARD MEMBER ROSENBAUM: As a follow up to
9 Mike's question, would it handle capacity in the event
10 of an emergency as well?

11 THE WITNESS: Well, an ODAS solution at the
12 school with the number of students during an emergency,
13 probably not.

14 CHAIRMAN FLANAGAN: Okay. All right.
15 That's all I have for now.

16 BOARD MEMBER NEWLIN: Mike, can I ask a
17 question. On the two charts, basically Z-14, Z-13, can
18 you explain the problems that Z-14 has that Z-13 does
19 not have?

20 SECRETARY TAGLAIRINO: Alf, do you want me
21 to start at Z-14?

22 BOARD MEMBER NEWLIN: I'll leave that to
23 Ms. Boschulte how she would like to answer that.

24 So basically these two propagations with
25 ODAS, what's the problem with the hundred-foot high

1 tower?

2 THE WITNESS: So I looked at 120 feet I
3 looked at a combination. So one is I looked at the
4 propagation maps, I looked at the CW, and I looked at
5 the terrain profiles. And at 120 -- at 120 feet you're
6 able to get to the top of the ridge on either side of
7 Millbrook better than you are at 100. And with the
8 quick roll off on the grade in signal strength the
9 concern is the handover between the proposed site and
10 an ODAS solution. That would be the issue.

11 You already have a weak signal strength
12 bridging between the two systems. And by lowering it
13 another 20 feet just makes it even weaker increasing
14 the probability of the macro and the ODAS solution not
15 being able to hand off to each other.

16 BOARD MEMBER NEWLIN: You know, we need to
17 understand more objectively how serious a problem that
18 is. You look at these two charts and of course we're,
19 at least I'm worse than a layman looking at it trying
20 to take it into account. It doesn't look that
21 different in terms of problems. So you have to explain
22 as best you can in an objective way, what are the --
23 what are the problems that you would have to deal with
24 if you were at 100 feet?

25 THE WITNESS: Well, one is as I mentioned,

1 by looking at the terrain profile. But if you look at
2 the areas in white they do begin to increase slightly.

3 BOARD MEMBER NEWLIN: I see that.

4 THE WITNESS: Especially near the areas
5 between Village Road and Pleasantville Road.

6 BOARD MEMBER NEWLIN: Okay. It still
7 doesn't look dramatic. Why am I wrong?

8 THE WITNESS: Understood. And when I went
9 back and I actually looked at the original height, the
10 140 feet, again, you know, with each decrease there is
11 a slight decrease at the cell edge. And the fact that
12 it's already weak and in the neg 100s, and the fact
13 that to get on an ODAS system there really needs to be
14 a certain amount of overlap so that it can have a
15 successful handover. It does leave the concern that at
16 a hundred feet this is not going to work.

17 BOARD MEMBER NEWLIN: And what solutions
18 would you have to make it work? Can you add ODAS units
19 here? Because as Mike brought this up, it sounds like
20 this ODAS plan preexisted, I think you said in the
21 testimony. So you didn't design this yourself. This
22 existed and I think, Rich, and correct me if I'm wrong,
23 this is assuming a 120-foot tower, is that true?

24 MR. SCHNEIDER: Alf, my understanding, and
25 I probably have less knowledge than you, is the

1 difference between Z-13 and Z-14 was the plan based on
2 100 feet versus 120.

3 BOARD MEMBER NEWLIN: Right. But I thought
4 that -- this ODAS design preexisted our request, I
5 believe that's our understanding.

6 MR. SCHNEIDER: If I can just clarify. I
7 thought, and maybe I didn't make this clear, the plan
8 that -- well, I'll ask Frances.

9 The plan that's presented while prepared by
10 Verizon is not some plan that they've taken out of the
11 drawer that's existed. I don't mean to be frivolous,
12 but this is a current conceptual plan. This is
13 something that you've looked at based on the 120 and
14 the 100 as we sit here in January. This is not some
15 2016, 2017 plan that is brushed up to be presented. I
16 just want to be responsive to Mr. Newlin's inquiry. Am
17 I correct about that?

18 THE WITNESS: So I -- I have to base it on
19 what they have provided me. And I read the ordinance
20 and for ODAS, and the fact that it has to be on
21 municipal right-of-ways. And when I looked at the
22 conceptual plan along with the proposed and looking at
23 ways if there was a way to implement additional nodes
24 to solidify the areas in white that are weak and would
25 be weaker at a lower height, I mean, I'm not an expert

1 at real estate so I'm not sure, but I didn't see any
2 locations where additional nodes could be added.

3 BOARD MEMBER NEWLIN: Could I just ask you,
4 because my questions are I much simpler, I think.

5 Did you design these -- did you place these
6 ODAS units, or did someone else do that? And did --

7 THE WITNESS: No.

8 BOARD MEMBER NEWLIN: -- and did this
9 placement preexist our request? Rich can you help me
10 keep this simple?

11 MR. SCHNEIDER: Do you understand the
12 question, Frances?

13 THE WITNESS: I requested based on our last
14 hearing the ODAS conceptual design. I was provided
15 with the locations.

16 BOARD MEMBER NEWLIN: Okay.

17 THE WITNESS: I put the locations in. I
18 ran the propagation analysis, and I produced the map.

19 BOARD MEMBER NEWLIN: Got it. So -- and
20 Rich, did this preexist our request, do you know, the
21 placement?

22 MR. SCHNEIDER: I don't know, but my
23 understanding that it was based on as we sit here in
24 January, this was not some prior -- it was not prior to
25 the best of my knowledge, but I can't tell you.

1 BOARD MEMBER SYMONDS: Wait. I would like
2 to put sort of my two cents in, because I know that,
3 and I'd have to find the letter because I can remember
4 writing a letter to the Mayor complaining about adding
5 new infrastructure because I can remember it was at
6 least two years ago that Verizon marked out these node
7 locations along Pleasantville Road, and I saw what it
8 was and found out why they were showing pole locations.
9 And again these pole locations were identified at least
10 two years ago.

11 MR. SCHNEIDER: I'll respond this way, Mr.
12 Symonds. I went back and looked at the transcript.
13 You raised that at the actual first hearing back in
14 2019 if my memory serves me correct. I frankly had
15 interpreted your comments at the time, and I may have
16 been wrong, as one saying well, I don't know that all
17 these ODAS nodes are a great idea, but I may have been
18 taking an inference that wasn't acceptable. But the
19 point being and I think I tried to preface it by
20 responding to the Chairs, there may have been -- I'm
21 not suggesting there wasn't a previous plan. All I'm
22 respectfully suggesting is this is the present
23 conceptual plan so I don't necessarily want to get
24 caught up in what may have been done in 2017, 2018 as
25 you've referenced.

1 So what I tried to do and make inquiry to
2 Ms. Boschulte is, what is the current plan regardless
3 of what Verizon may have done as you've referenced in
4 2017 or 2018. In fact, Mr. Simon, what may have been
5 done in 2017 or 2018 may very well have been predicated
6 at that point on a 140-foot tower.

7 So what I've tried to do, and I think
8 fairly and objectively and respectfully is to say,
9 forget about what may have occurred. This is the
10 present plan in response to the Board as we sit here in
11 January 2021.

12 BOARD MEMBER NEWLIN: And I think that's
13 even -- it is better. So it's a good thing.

14 MR. SCHNEIDER: This is a plan from a
15 couple of years ago, but that's why Mr. Flanagan had
16 specifically said I don't want to know -- I don't want
17 to get caught up in semantics. I think he was telling
18 us, don't not give us a plan because it may not have
19 been submitted. Tell us what the current plan. That
20 was what the Chair specifically asked us at the
21 conclusion of the last hearing.

22 BOARD MEMBER NEWLIN: Okay. I have two
23 questions then I'm going to stop. First question is,
24 with regard to placement of these ODAS units, I'll make
25 a statement and you can say it's wrong, but there is

1 some flexibility potentially of reconfiguring, however,
2 there are constraints that I think has been stated.
3 It's not a question of just plunking them wherever you
4 feel like it, but there is some ability to adjust it
5 perhaps to remediate some of the problems. Is that
6 fair enough to say?

7 MR. SCHNEIDER: Fair enough to say with the
8 additional provision as I think you're being fair
9 enough that we would have to comply with the ordinance,
10 but that's correct. There is flexibility. That's why
11 I said it's conceptual. You're correct.

12 BOARD MEMBER NEWLIN: And the second
13 question goes back the 5G aspect. Really my question
14 was specific with regards to ODAS units, that in a
15 sense, think about it this way, Rich. 5G is
16 commercially pretty important. It looks like that --
17 it looks like the cell phone companies for Verizon are
18 committed to doing that. It is somewhat of a marketing
19 term. I understand that. But my question is specific.

20 Does the 5G initiative, how is that related
21 to ODAS?

22 MR. SCHNEIDER: That's -- so Frances the
23 specific question is in terms of the ODAS system which
24 would conceptually compliment the macro site, how
25 would, if I'm understanding Mr. Newlin's question, how

1 would 5G be implemented in conjunction with the ODAS
2 node?

3 BOARD MEMBER NEWLIN: No. My question is
4 more like this. If you have a strong objective to
5 implement 5G in this area, and I understand it's
6 probably in the future, to what degree does that make
7 you want to install more or less ODAS units, or it has
8 no relevance whatsoever. That's my question.

9 Maybe Dr. Eisenstein can also answer that.

10 MR. SCHNEIDER: Frances, why don't you go
11 first?

12 THE WITNESS: Sure. For me 5G has to be
13 defined on what frequency is going to be utilized.

14 BOARD MEMBER NEWLIN: I understand that.

15 THE WITNESS: So if it's going to be a
16 higher frequency the coverage footprint's going to be
17 less, and you would need more --

18 BOARD MEMBER NEWLIN: ODAS units?

19 THE WITNESS: -- for -- yes, for --

20 BOARD MEMBER NEWLIN: But to get that kind
21 of service quality you do need high frequency, right?
22 Otherwise you can't get the network bandwidths. So you
23 can run 5G over 700 megahertz is my understanding but
24 it's not very good. So you really do want more higher
25 frequency nodes. Is that roughly true?

1 THE WITNESS: Yes.

2 BOARD MEMBER NEWLIN: So wouldn't it mean
3 that if you push 5G you're going to want more ODAS? Is
4 that materially true?

5 THE WITNESS: You can need more, but they
6 would also be placed strategically in areas that would
7 be demanding the 5G data so to speak.

8 BOARD MEMBER NEWLIN: And would that be
9 primarily residential or would cars eventually need
10 something like that, like self-driving cars, or is that
11 a stupid question? If it's a stupid question feel free
12 to say so.

13 THE WITNESS: I don't think any question is
14 a stupid question, but I don't foresee that being
15 needed for vehicles. Maybe Dr. Eisenstein may know
16 more about that, but from what I can tell, no.

17 BOARD MEMBER NEWLIN: Okay. Thanks.

18 DR. EISENSTEIN: At the higher frequencies
19 you're going to need poles that are close to the
20 ground, 25, 30 feet. You can't use a macro site for
21 that because you're losing too much propagation from
22 the height of the tower. And you'd like them fairly
23 dense, dense meaning perhaps on a 500-foot to 700-foot
24 radius of coverage, assuming it's like a circular
25 coverage around each pole. So the simple answer is as

1 they implement 5G you're going to need lots of poles,
2 many, many poles.

3 But having said that, it's not clear at
4 this stage whether or not Harding would be a candidate
5 for 5G systems. I'm sensing that because of the need
6 to have the -- the 5G sites so dense that the first
7 implementation is going to be in metro areas. The
8 dense metro areas. I don't know how long it will be
9 before it goes out to the suburbs. It might be a very
10 long time.

11 BOARD MEMBER NEWLIN: That's nice of you to
12 call us suburbs. We're not even that probably. We'd
13 be last in line is your point, possibly.

14 DR. EISENSTEIN: You're not exactly rural
15 either, but rural would never get 5G. That's already
16 off the table, because there would be an infinite
17 number of sites required to implement it.

18 BOARD MEMBER NEWLIN: So it's not
19 commercially feasible.

20 DR. EISENSTEIN: Well, it just doesn't make
21 any sense, because there are other ways of handling it.
22 But in any case, the simple answer is, as they start
23 rolling out 5G they're going to want to have lots of
24 nodes all over the place, not necessarily these ODAS
25 nodes. What I'm seeing or at least around the areas

1 where they've started putting up the 5G nodes, is
2 they're putting up their own poles, brand new poles,
3 you know, shiny steel poles. They look to be about 40
4 feet tall and they're moving them around. They're not
5 using any existing infrastructure. That's what I've
6 seen so far.

7 MR. SCHNEIDER: Mr. Chairman, if I can just
8 make one other comment because I know you wanted a
9 couple of minutes at the end and we're approaching the
10 witching hour, but Mr. Newlin reasonably was asking
11 Frances about some of the differences between 120 and
12 100 a couple of minutes ago and we're not going to get
13 into it now, but Mr. Newlin at the -- the prior report
14 dated March 3rd, 2020, under paragraph 16 and 17 and
15 the accompanying charts did provide some at least
16 narratives in terms of the difference in roads that
17 were covered by the two, if that's of any assistance.

18 BOARD MEMBER NEWLIN: I'll look into it for
19 sure, but does that take into account the ODAS aspect?

20 MR. SCHNEIDER: No. I thought it was just
21 in response to a difference in coverage from the macro
22 site at 120 versus 100.

23 BOARD MEMBER NEWLIN: The problem I have in
24 a way, Rich, which I could be wrong, is that to me
25 we're making a decision on the overall network, and I

1 can't understand how we could ever have made a decision
2 without the ODAS aspect, because that's part of the
3 service, and there is some flexibility.

4 I understand it's not a magic bullet or
5 anything like that.

6 MR. SCHNEIDER: Understood. And I think I
7 readily conceded that it was conceptual and there was
8 flexibility, and there may be nodes added, reduced,
9 added depending on location and public right-of-way,
10 just to provide -- and I know it's getting late and no
11 one wants me to get into this, but under your ordinance
12 there are about 16, 17 different provisions as they
13 relate to where you can install the ODAS nodes.

14 And just by way of example just to give you
15 some sense of it, for example, under the ordinance and
16 I'll just quote one provision, within the PL Zone on
17 any public right-of-way within the PL Zone you can't
18 have any cabinets or new poles within the municipal
19 right-of-way in the PL Zone.

20 BOARD MEMBER NEWLIN: Sure, but ordinances
21 can be changed. And that's one of the things the
22 Planning Board does is it looks at getting things --
23 keeping it modern and reasonable. So that's another
24 tool for sure.

25 MR. SCHNEIDER: I just wanted to point that

1 out.

2 BOARD MEMBER NEWLIN: No, it's super
3 helpful. I appreciate it.

4 MR. SCHNEIDER: Mr. Flanagan, the timing
5 works out 10:54. So if nothing else, I'm good on
6 timing tonight.

7 CHAIRMAN FLANAGAN: Well done. With an
8 extra minute.

9 Mr. Simon, we did not have an opportunity
10 for you to do your cross-examination. Am I correct
11 that you're going to have some questions for Ms.
12 Boschulte?

13 MR. SIMON: Absolutely yes.

14 CHAIRMAN FLANAGAN: So Mr. Schneider, we're
15 going to ask that Ms. Boschulte come back to our next
16 meeting to give Mr. Simon and the public an opportunity
17 to ask any questions. So Ms. Boschulte we look forward
18 to seeing you again.

19 THE WITNESS: Likewise.

20 MR. SCHNEIDER: So -- go ahead, Mr.
21 Chairman. You were about to say something.

22 CHAIRMAN FLANAGAN: I was going to say, do
23 we have anything else?

24 MR. SCHNEIDER: Well, we do, but could we
25 discuss scheduling?

1 CHAIRMAN FLANAGAN: Okay.

2 MR. SCHNEIDER: I'm appreciative of all the
3 time, and to use your words from earlier and the
4 reorganization, the efficiency that the Board acts
5 with, but I'm trying to move this along. And from what
6 I gather, or not from what I gather, from what Lori
7 told me you have a very full agenda in February in
8 terms of residential applications.

9 SECRETARY TAGLAIRINO: We have a
10 potentially full -- there are a lot of applications
11 that are trying be deemed complete at the moment, yes.

12 CHAIRMAN FLANAGAN: How many at the moment,
13 Lori, do we have on the Agenda that are complete that
14 we can say are ready to go?

15 SECRETARY TAGLAIRINO: We have two for
16 sure, and then we have the one coming back. So that
17 would be three.

18 CHAIRMAN FLANAGAN: All right. So we have
19 the one from this -- from first thing, the "D"
20 Variance. And then what the other two, are they
21 residential or are they variances?

22 SECRETARY TAGLAIRINO: One is residential,
23 and may -- that one may or may not require a site
24 inspection. The other one is also residential, but it
25 has -- it's very complicated. There might be "D"

1 Variances -- there might be two "D" Variances attached
2 to this.

3 CHAIRMAN FLANAGAN: How is it -- but at
4 this point we don't know if they're asking for "D"
5 Variances but we think they're going to be on the
6 Agenda?

7 SECRETARY TAGLAIRINO: No, we do, we just
8 don't know if there's one or two. That's all.

9 CHAIRMAN FLANAGAN: I got you. Okay. Fair
10 enough.

11 MR. SCHNEIDER: Mr. Chairman, let me, and I
12 did mention this to Steve. I tried to be sensitive,
13 but it may now be an appropriate time in light of your
14 Agenda in February, and would the Board consider at our
15 expense a special meeting maybe made more palatable by
16 the fact that we're on Zoom and you can have the
17 comforts of your own house where -- my thought process
18 is this: And we are under some shot clock. I tried to
19 move this along. I'm sensitive to not scheduling
20 special meetings, but here's my thought.

21 I really would ask for respectful
22 consideration to one of two alternatives which I'll
23 throw out: Either (A) that we at least try to commit
24 to getting Ms. Boschulte done at the February meeting,
25 or alternatively given what appears to be a

1 significantly heavy Agenda would the Board consider the
2 following, a special meeting where we conclude Mr.
3 Simon's examination of Ms. Boschulte and then I can
4 then be given a real good amount of time to start
5 planning. I think the planning testimony here is
6 important and I'd rather it not get interrupted over
7 two, three hearings and get one fell swoop of all the
8 planning testimony in. So that's my respectful
9 request.

10 CHAIRMAN FLANAGAN: Okay. So if you were
11 to get Ms. Boschulte done at the February meeting in
12 the entirety does that get you where you want to be,
13 and does that eliminate the need for a special meeting?

14 MR. SCHNEIDER: I think if we can do that
15 that would be fine and then we can have a subsequent
16 discussion in February about whether we can then maybe
17 set aside one night between February and March to do
18 planning.

19 CHAIRMAN FLANAGAN: Let me ask Mr. Simon
20 then. So how long do you think your cross-examination
21 of Ms. Boschulte will take?

22 MR. SIMON: It will take at least an hour
23 and maybe two.

24 CHAIRMAN FLANAGAN: Okay. Which leaves me
25 an hour and a half for other applications. Right? So

1 on the outside we have an hour and a half for the other
2 applications. I think we probably have to hear this
3 application we have the site visit with on Saturday,
4 but perhaps other ones get bumped.

5 Well, how about this, Mr. Schneider. Why
6 don't we say on next February's meeting you will go
7 first and we will run for no more than two hours. And
8 Mr. Simon can you assure me that you will take no more
9 than two hours?

10 MR. SIMON: I'll to my best. I don't time
11 it, but I will take that, you know, I will do my best
12 to be as efficient as possible, as I always do.

13 CHAIRMAN FLANAGAN: So Mr. Schneider, if we
14 let you go first and Mr. Simon will finish his
15 cross-examination of Ms. Boschulte, and then if one of
16 these other applications where it gets pushed it may
17 have to get pushed.

18 SECRETARY TAGLAIRINO: Yes, because when we
19 were talking about special meetings I have to tell you
20 that we have the diversion coming up with all those
21 hearings and I'm not sure when they're scheduled for so
22 I wouldn't even be able to give you a date for a
23 special meeting at this point because I know that the
24 courtroom will be taken, and so --

25 BOARD MEMBER NEWLIN: Do we need the

1 courtroom?

2 CHAIRMAN FLANAGAN: Well, for Lori. For
3 the recorder.

4 SECRETARY TAGLAIRINO: Well, for the
5 recorder, I mean, we can. I mean, it's not ideal, but
6 we could do the whole thing from -- no one here is
7 involved in any of that, right? No one here at all is
8 part of that, right?

9 CHAIRMAN FLANAGAN: The diversion?

10 SECRETARY TAGLAIRINO: Well, they're
11 hearings, they're public hearings. So nobody was
12 intended to go. But, yeah, we can -- I do know that
13 the one application already noticed for tonight and was
14 bumped, just saying.

15 CHAIRMAN FLANAGAN: Oh, we bumped someone
16 from tonight?

17 SECRETARY TAGLAIRINO: Yeah, Gary and I
18 kind of --

19 CHAIRMAN FLANAGAN: Oh, I didn't know.

20 Mr. Simon, go ahead.

21 MR. SIMON: I apologize. Can you just
22 confirm, when we're talking about the February date
23 what date is that?

24 SECRETARY TAGLAIRINO: February 18th.

25 CHAIRMAN FLANAGAN: Well, you know, Lori,

1 remind me this, but Mr. Schneider does that work for
2 you?

3 MR. SCHNEIDER: That does. And I would
4 just in advance just ask, maybe we can give some
5 consideration, assuming Mr. Simon gets his
6 cross-examination in in two hours to maybe give some
7 consideration to a special meeting between February and
8 March depending on your Agenda items, because I think
9 it would really be beneficial, frankly, for the Board,
10 the Applicant, and others just to get planning
11 testimony in in one fell swoop and not broken up over
12 multiple hearings.

13 CHAIRMAN FLANAGAN: I do think, and for the
14 Board's benefit, I do think come March we'll probably
15 have to have a special meeting, especially if we're
16 going to have to bump other applications from next
17 month. So I think in March that sounds like a fair
18 idea.

19 MR. SCHNEIDER: That's all I can ask. And
20 your arrangement about allowing us to go first I think
21 is fair and appropriate. Frances, I assume you're
22 available, although not looking forward to Mr. Simon's
23 two-hour cross-examination, but you're available in
24 February at that date?

25 THE WITNESS: I am available.

1 MR. SCHNEIDER: So for the record we'll
2 carry that to the February date. The Applicant grants,
3 without further notice required, same Zoom procedure,
4 and the Applicant grants an extension of time under the
5 shot clock and Municipal Land Use Law. And I assume
6 that the Board likewise mutually grants the extension
7 under the shot clock order?

8 CHAIRMAN FLANAGAN: The Board mutually
9 grants the extension of the shot clock order.

10 MR. SCHNEIDER: Okay. Then we'll call it a
11 night. We'll see you in February.

12 CHAIRMAN FLANAGAN: Ladies and gentlemen,
13 is there any other business? No? We're adjourned.
14 Thank you everybody.

15 BOARD MEMBER NEWLIN: Good night.

16 (Whereupon, the hearing on this application
17 concludes at 11:03 p.m.)

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C E R T I F I C A T E

I, IRIS LA ROSA, a Notary Public and Certified
Shorthand Reporter of the State of New Jersey, do
hereby 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.

IRIS LA ROSA, CSR, RPR
Certificate No. 30XI 00162800

Dated:

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