

5 1 degree in biology from Montclair State. I don't say 2 college or university because it's to confusing and 3 don't want to admit my age. I have a masters degree 4 from Montclair State as well in environmental studies. 5 I have a teaching certification of science K through 12 6 from Montclair State, which is a lifetime certification 7 because of the time it was received. I have taught at 8 New Jersey School of Conservation where I received my 9 masters degree. I have concentrations in study on 10 environmental science, biology, botany and orthology 11 with a focus on the entire environment as part of the 12 masters program. 13 For the past almost four decades I have 14 worked in the environmental field and currently work and 15 have worked since 1995 running my own consulting firm, 16 DeFeo Associates, which is an environmental consulting 17 firm which focuses on sustainability, green building and 18 environmental sustainability in terms of development. 19 I am a LEED accredited professional as well 20 with a concentration in building design, B, D and C it's 21 called, Building, Design and Construction. That means 22 that that concentration focuses on new construction in 23 different areas. As part of a LEED accredited 24 professional, excuse me, I will have worked on projects 25 where we work on virgin sites and also sites that are	7 1 signed to most recently in 2024. 2 CHAIRMAN BAGOFF: Okay. Great. 3 Mr. Plocker, after Mr. DeFeo presents would 4 you like to question him about his report? 5 MR. PLOCKER: I guess it all depends on what 6 he has to say. 7 I guess, just for the record, Bryan Plocker 8 on behalf of the applicant. 9 CHAIRMAN BAGOFF: Mr. Afran. 10 MR. AFRAN: Good evening. 11 CHAIRMAN BAGOFF: Would you or Mr. Afran 12 want to ask about his credentials? 13 MR. AFRAN: Well, I was going to raise that 14 issue. Often boards do this and then later the cross 15 can raise that. So I'm happy to do it that way if 16 that's the boards pleasure. 17 CHAIRMAN BAGOFF: That's fine. 18 MR. AFRAN: So after their cross we'll raise 19 our questions. 20 Good evening, Mr. DeFeo. 21 THE WITNESS: Good evening. How are you? 22 MR. AFRAN: I wanted to say, I want to 23 apologize for being late if I delayed the beard. 24 CHAIRMAN BAGOFF: I was late too. 25 Mr. DeFeo, you have the floor.
6 1 existing with renovations to buildings from a 2 sustainability standpoint. I have worked on buildings 3 with regard to wellness and I have worked on landscape 4 designs and currently most recently volunteered or was 5 volunteered, I'm not certain which, working on the 6 development of a rain garden for one of our local 7 schools. 8 I also serve as chairman of my environmental 9 commission in my town and I have also served as vice 10 chairman of the Interstate Environmental Commission from 11 1992 to what, I can't remember what year, which is a 12 tri-state environmental commission authorized by 13 congress with jurisdiction in New York, New Jersey and 14 Connecticut. 15 CHAIRMAN BAGOFF: Are your licenses current 16 in the State of New Jersey at this time? 17 THE WITNESS: I am not per se licensed, but 18 my LEED accreditation is, yes. 19 CHAIRMAN BAGOFF: Are you familiar with this 20 site and the application? 21 THE WITNESS: I am. 22 CHAIRMAN BAGOFF: And have you visited the 23 site yourself? 24 THE WITNESS: I visited the site on numerous 25 occasions since prior to the settlement agreement being	8 1 THE WITNESS: When you're ready. 2 CHAIRMAN BAGOFF: Yes, sir. You have the 3 floor, sir. 4 A. Thank you, Mr. Chairman and members of the 5 audience, I'd like to present to you tonights overview 6 of the site and the environmental conditions related to 7 the trees in particular, which of course is concern of 8 this group. 9 What I have done in this presentation are a 10 couple of things. First, I have done a historical 11 satellite survey of the site and you can see here this 12 site in 2002, roughly in the same area, this is the 13 forest in question. Even down to the fact that there is 14 this remaining site of soil. The site here is West 15 Essex Highlands. Just as a point of knowledge, this 16 would have been contiguous as forest to this forest at 17 one time in history. 18 You can see as I go through these sides in 2009 19 of course a winter slide and then in 2016 of course the 20 difference in color is just seasonal. Be aware of that, 21 it's a seasonal change. 22 And now we have in 2019 a more detailed slide, 23 but to go back and quickly note that over these slides 24 you will see very little difference in the overall 25 canopy of the forest. Now, that's because the forest

1 canopy has been fairly consistent for a long number of
2 years.

3 In 2019 we were commissioned to perform a tree
4 analysis using a quadro analysis and site analysis to
5 determine the impact of the development on the tree
6 structure and more importantly to determine what the
7 condition of the forest was at that time. To get -- to
8 accomplish this I hired Davey's Environmental, which was
9 formally known as Amy S. Greene Environmental -- sorry
10 let me correct that. In 2019 it was still Amy S. Greene
11 Environmental, she has since sold the company to Davey's
12 Environmental, my apologies.

13 The analysis was performed in order to analyze,
14 as I said, species of trees, the density, the types and
15 their condition.

16 Now, in this we did an analysis, or I should say
17 Amy S. Greene did the analysis that I reviewed and it
18 uses a basic statistical analysis for forests and we
19 estimated a range of trees per acre. In order to be
20 conservative, meaning to the greatest degree possible,
21 say there are the most trees being removed when in fact
22 there may be less, we used the highest density of trees,
23 which is 212 trees per acre. In fact there was a range
24 of trees, it could go as low as 64 per acre but because
25 we were trying to demonstrate the most potential impact

1 we went to the higher number. That would mean on the
2 entire 120 acres we estimate, and understand that a
3 forest analysis is not a tree by tree count, it is a
4 statistical overview of that forest. So we estimate
5 25,440 trees. Notice I put plus or minus, very similar
6 to when you look at a survey you will see acreage as
7 plus or minus. There might be more there might be less.

8 What is important in that study, more important
9 than the number in my opinion, is the very lack of trees
10 less than four inches in diameter. A tree survey, a
11 tree is by definition something greater than four inches
12 in diameter, a woody plant and it is measured at what is
13 called DBH or diameter breast height, which is four and
14 a half feet aboveground. When you don't see any large
15 number of trees below four inches that is an indication
16 of something you have to look at in greater detail
17 because it is saying there are no seedlings to replace
18 the older trees in the forests where there appears to be
19 a lack thereof. You can see that we have some fairly
20 large trees, 20 inches, 24, 28 and etc. But very few
21 young trees. When you get to the four inch part you see
22 a fair number of trees. When a tree is four inches in
23 diameter it is generally tall enough to avoid deer
24 browse. The basic finding of that study is that the
25 forest is unhealthy because there is a distinct lack of

1 diversity of plants. The trees are mostly older. There
2 are virtually no seedlings or young saplings and the
3 understory is virtually denuded in the forest with the
4 exception of invasive plants. There are a number of
5 barberry, if you walk -- if you walk through the site
6 you will see Japanese barberry common especially in the
7 wetland area. Japanese barberry is a plant that many of
8 us have in our yards throughout West Orange and they
9 migrate into this forest. Deer do not eat them. They
10 are invasive, they crowd out native plants and they have
11 almost zero wildlife value, but you see a lot of them.
12 They're also very heavily thorned, so it's difficult to
13 deal with them.

14 An example on this slide shows you the actual
15 site. Notice here as you look in this forest, forget
16 the chair, but notice as you look at the forest that you
17 can see without any impediment all the way through the
18 forest. This is not what a forest is supposed to look
19 like. A healthy forest does not look that way.

20 This is an example of a study done of another
21 site. Again, same problem. I can see through the
22 forest. Here I've got some sunrise and -- I'm sorry.
23 Sunshine. So I have some light undergrowth. You will
24 see this also in this site, all though I don't have
25 images of it, and that grass that we typically see on

1 the property is Japanese stiltgrass, another invasive
2 species. Has almost no wildlife value and is in fact
3 highly invasive.

4 A healthier forest looks more like this. Lots of
5 undergrowth. Lots of young trees. Variety. This was
6 taken in an area in New Jersey. Just so you know, this
7 is an actual forest in New Jersey that I went to see the
8 difference. The fundamental difference in these two
9 slides is that this particular forest has fewer deer per
10 acre, and therefore the plants have a chance to grow.

11 So what did we come across. Well, what we've
12 done is we suggested as part of this that we look at, in
13 the negotiations, back in I would say 2018, 2019 is my
14 recollection, we made a recommendation to say, how do we
15 protect the greatest amount of forest and how do we get
16 the forest to regenerate. If we leave the forest as is,
17 without any fencing, it will stay as it is today. Might
18 these trees last another 100 years, they might. All
19 though I will tell you, in my last inspection, which was
20 probably June or July, we did notice that we had beech
21 leaf disease invading the large beech trees. This is a
22 new disease coming into the northeast that we don't know
23 the cause of. We do know that within five to ten years
24 it will kill every beech tree and most of the trees that
25 I had observed were infected. You can tell the

1 infection because it looks as though someone painted
2 dark stripe, light stripe on every leaf as you look up
3 into the canopy. Unfortunately this is happening
4 everywhere. I walked three or four forests since then
5 and it's, it's not a good sign.

6 Historically, as you know, the ash trees in this
7 forest are doomed. Ash is a species that we don't know
8 how much longer it will live in the northeast. It is a
9 native species. To give you a little context, in light
10 of the Yankees playing tonight, you will notice that
11 major league baseball players are now looking for
12 alternative woods for baseball bats because there isn't
13 sufficient ash for them to make their bats. This is an
14 issue. We therefore suggested as part of the
15 negotiation the deer fencing as much as we could get.
16 The advantages are multifold. First, to put in context,
17 the areas in green on this property are effectively
18 undisturbed from the existing forest. The only areas in
19 here that will have trees removed are in the areas that
20 you see of course where the buildings are located and in
21 the white areas here down to the storm detention areas.
22 The areas in dark green, which are undisturbed but will
23 be deer fenced, are designed to allow for regeneration
24 of the forest. A lot of this area in here is wetland
25 and unfortunately right now if you walk-through here you

1 could not walk from here across here without getting cut
2 up pretty bad. You would be cut up by the barberry
3 thorns that are there.

4 So to put some things in context, I know there's
5 concern over disturbing the land, this is it. Most of
6 this land will be undisturbed and will be protected.

7 What does a deer fencing do is a question that I
8 tried to answer. This is an example of an area very
9 similar to this forest. These are all northeastern
10 forests by the way, nothing taken out of this area. And
11 this is the other side of the deer fencing after nine
12 years. And if you notice there's a significant amount
13 of undergrowth. There's significantly new trees here.
14 The first time I observed deer fencing in operation and
15 use was in a graduate study performed by a colleague
16 back in 1982 and I can tell you that forest is almost
17 fully regenerated.

18 Effective deer fencing design is critical. If
19 you don't do it correctly it doesn't work. In my report
20 to the planning board you will see a recommendation by
21 the New Jersey Department of Agriculture for a specific
22 design in deer fencing, which will be this design. This
23 was taken at the largest deer fenced restoration area
24 that I know of in New Jersey, a total of 640 acres.
25 Fully deer fenced. It's in Hillsboro at Duke Farms.

1 The Duke Estate is a preserved 2700 acre estate. They
2 have fenced one square mile, which is 640 acres. And
3 they are studying the impact of how effective deer
4 fencing can be. Deer cannot get through this fencing
5 obviously. They will not jump it. Deer have a limit
6 typically of six to eight feet and you will notice the
7 large spacing here, small animals will have no problem
8 getting through deer fencing. That was a concern raised
9 in several of the hearings before. Fox, try to keep a
10 fox out of anything, and that's not going to be done.
11 If you've ever had chickens or have, chickens is the
12 operative word. And other small game will have no
13 issue. The issue of chipmunks, birds, they have no
14 impact on deer fencing and deer fencing has no impact on
15 them.

16 These images are all taken at Duke Farms. This
17 is three years worth of growth in a protected zone.
18 Now, I'm going to go backwards quickly and I've come
19 back. All right. What have I done wrong.

20 See here. Put that image in your mind. Put that
21 image in your mind. Sorry. There we go. And put that
22 image in your mind. That is a significant change in
23 growth pattern.

24 Within a couple of years you really don't even
25 know the deer fencing is there. Vines love deer fencing

1 by the way, as you might imagine.

2 This is deer fencing, again, taken at Duke Farms,
3 because it is the largest, that I know, and oldest study
4 that's been done in New Jersey in terms of continuous
5 use. I don't see the deer fencing. I had a hard time
6 seeing it and I was standing next to it. The
7 undergrowth will come into play and takeover on that
8 site.

9 Another advantage of undergrowth is of course
10 that the more growth I have the more plants I have, the
11 more water I will absorb, if on the ground. The more
12 undergrowth, the more water absorption, the more water
13 absorption the less runoff. And if you will notice on
14 the map going this way -- I have to go backward, I'm
15 sorry. There. If you'll will notice here, a lot of the
16 deer fencing --

17 MR. AFRAN: Could we just note, I'm sorry.
18 Could we just note what screen it is, because there's no
19 page numbers. This is a schematic of the plan.

20 THE WITNESS: Just use SP-11, would that be
21 helpful?

22 MR. AFRAN: Yeah, that's okay.

23 THE WITNESS: If you notice on this drawing
24 from SP-11 a large section of deer fencing is on the
25 steepest slopes. The undisturbed area is also in here

17 1 and on this side where it gets a little steep, not to 2 bad, but this one in particular, as this area fills in 3 with that new growth there will essentially be sponges, 4 for lack of a better term and that's not a technical 5 term, into the ground. 6 In addition, from a visibility standpoint, 7 as that growth becomes denser seeing through this space 8 will be harder and harder. So natural growth 9 regeneration reduces visibility through the forest, 10 which to some people is disturbing but to others makes 11 sense and it will increase water absorption. 12 So as we go through the site we do come up 13 with about, based on a revised review of the site in 14 2024, we're again Davey Tree came in and did a basic 15 walk-through and certain revisions. We have about 5830 16 new trees potentially being removed if the density in 17 the developed zone is actually 212 trees per acre. And 18 we can't guarantee, it's probably lower in some spots 19 and generally not higher. So this number is a maximum. 20 The number actually decreases because the applicant 21 actually has reduced the acreage of disturbance from 22 what was allowed in the settlement agreement, so 23 therefore there are fewer trees potentially, and that's 24 a very important word, potentially, impacted. In this 25 proposed site, should it be approved, you have 77	19 1 The second area here we used the tree loss 2 here. Now, this is per the plan. We are looking at, 3 this says, Trees Saved. Zero. Understand that that's 4 assuming that every tree has to be removed and we don't 5 know that today. But for worse case scenario my report 6 projects the most number of trees. If trees can be 7 protected, we will work with the applicant on that. On 8 that same path, understand that when this project starts 9 we will be out there with a representative from Davey 10 Environmental, who I retained for this process, to make 11 certain that we do not leave the area of allowed 12 disturbance. So the areas that are protected will be 13 observed and we will work closely to monitor and make 14 sure that does not change. 15 The applicant was given credit for the, all 16 of the native species that have been planted and they 17 were given credit for every tree preserved based on the 18 deer fencing. Why? Well, as I would point out to you 19 and most recently in the Association of New Jersey's 20 Environmental Commission Report for the fall, if you 21 look in here, there's a large article on tree death in 22 the northeast and the Mid-Atlantic. There's an entire 23 section of this report talks about using deer fencing as 24 a way to preserve and protect forests to allow them to 25 regenerate. The one caveat on deer fencing is the cost.
18 1 percent, approximately, of tree cover preserved in 2 perpetuity. 3 The negotiation called for, in this case, 4 and it's actually not on 33 acres but only for 30. The 5 applicant increased by three acres total deer fencing. 6 33 acres of deer fencing. The eight-foot height will 7 prevent deer from entering that area. 8 Now, another question that had been raised 9 in one of the earlier hearings, what happens to the deer 10 in the fenced in area. The deer will be herded out of 11 the area before the fence is closed with a gate. Each 12 deer fenced area will be gated. The applicant can use 13 that land for trails or recreation if they so choose, 14 that's up to them of course. But the deer will be 15 driven out of that particular area. In both my visits 16 to the area I counted approximately eight to ten deer 17 maximum on the property. Not saying there aren't -- I 18 am not, I am not saying that there aren't more deer on 19 that property, but I will tell you their health will be 20 limited by browse. 21 The nearest deer fencing project in New 22 Jersey to this site would be South Mountain Reservation. 23 South Mountain Reservation has certain areas that they 24 want to protect in the park with deer fencing 25 surrounding it.	20 1 That it's expensive to put acres and acres of deer 2 fencing in. In this case the applicant, when we 3 negotiated with the applicant, we gave credit for that 4 deer fencing to encourage that expense, if you will, 5 because it's a big expense. The best price I have, that 6 I've seen on deer fencing is about \$20 per linear foot. 7 And 33 acres and how many linear feet that is. So the 8 applicant was given credit for the deer fenced area to 9 encourage more areas to be deer fenced to encourage 10 greater forest growth. 11 In addition the native trees, shrubs and 12 perennials, grasses and ground covers, that the 13 applicant has agreed, and by the way these all, in terms 14 of specific species, are subject to further discussion. 15 Just as a point, we've already had discussion on one 16 native species and substituting it for another due to, 17 unfortunately, to climate change. We don't want to put 18 in a tree and it just can't survive. 19 This is now your seed nurser. These shrubs 20 will create seed. Those seeds will be spread by wind, 21 they will be spread by birds, they will be spread by 22 animals. Well, if they land outside the deer fencing 23 they might live, but if they land inside the deer 24 fencing they have an infinitely better chance of growth. 25 So we will try to encourage a greater amount of native

21 1 growth into the forest. As I said to you, one of the 2 sad parts of this forest is it's filled with invasive 3 species, mostly from the backyards of neighboring 4 properties, because they're planted there. It's 5 nobody's fault, we allowed them to be planted in New 6 Jersey, it is what it is. This growth will encourage 7 two things. One, it encourages, as I said, the growth 8 of new plants and absorption of water. 9 And two, the new plant's over time in 10 studies that have been done throughout the country can 11 start to crowd out invasive plants. One of the beauties 12 of native plants is given time and given the right 13 conditions they can compete against invasives. It's 14 good news going forward. That means we will preserve 15 more land, we will preserve a number of trees, most 16 importantly we will be reseeding by nature and allowing 17 the trees that are still left in that forest after the 18 beech and ash die out, which we know will happen, for 19 new trees to come in. Which will be predominately old 20 maple, but will be others as well. 21 We will have native shrubs and native 22 flowers able to grow in that area which are having a 23 hard time today. 24 The applicants design reduces the footprint, 25 this was also part of the negotiation. How much more	23 1 Start off with the board, any members of the 2 board have any questions for Mr. Defeo. We're going to 3 start off with Mayor McCartney. 4 MAYOR McCARTNEY: Mr. DeFeo, the slides are 5 not numbered. 6 THE WITNESS: I apologize. 7 MAYOR McCARTNEY: But in one of the slides 8 that you showed show the deer fencing on steep slope on 9 the left-hand side. If you can go back to that. 10 THE WITNESS: I'm trying. You're talking 11 about the map, correct? 12 MAYOR McCARTNEY: Correct. 13 THE WITNESS: Okay. 14 MAYOR McCARTNEY: That was it. 15 THE WITNESS: That one or the next one? 16 MAYOR McCARTNEY: There's another one. 17 MS. MCGOVERN: Was it SP-11? 18 THE WITNESS: I'm trying to get there, it's 19 not listening to me. There you go. Sorry. 20 Yes, ma'am. 21 MAYOR McCARTNEY: So the question is, the 25 22 acre steep slope on the right, but on the left where it 23 shows the deer fencing there, will that be moved? I 24 mean, it's just in that one space but it seems to me 25 that that could even come in?
22 1 can you put under a building applicant, to save more 2 forest. The applicant agreed to 100 percent native 3 plants. We might choose to substitute indigenous, but 4 nonnative. To give an example on that would be, if you 5 want a particular type of evergreen that's been 6 hybridized on the west coast of the species and you want 7 that on this site, they wouldn't get credit for it per 8 se, but it's not invasive. And the most important thing 9 in landscape design today is to avoid invasive plants. 10 If you've ever been to the High Line in New York, as an 11 example, there are plants from elsewhere of the United 12 States or from Europe but they're not invasive. So that 13 can be done in a way that maximizes beauty, but doesn't 14 hurt the environment. 15 It can and includes passive recreation. 77 16 percent of the property will be preserved. The passive 17 recreation -- there are already trails in that property. 18 They weren't cut by anybody, they were done by use of 19 people over the years. And we also, of course in the 20 settlement, as you have seen in the applicants 21 presentation, they include permeable parking areas to 22 reduce runoff. 23 So Chairman, that is the end of my 24 presentation. 25 CHAIRMAN BAGOFF: Thank you.	24 1 THE WITNESS: You're talking about here? 2 MAYOR McCARTNEY: Further. Yes. 3 THE WITNESS: Yeah. The problem with coming 4 in further I'm in wetlands and the stream corridor and 5 it's going to be difficult to get permission to come 6 into that area. You don't want it going into the 7 wetland area. Just like even to go in here if I wanted 8 to remove or wanted the applicant to remove the invasive 9 barberry they would have to get a permit from the DEP to 10 go in there to remove the invasive plantings. So we 11 kept the deer fencing to avoid impacting the wetlands at 12 all and that's why we didn't come in further. 13 MAYOR McCARTNEY: And with the DEP there are 14 setbacks also the DEP requires to stay as far away as 15 you could? 16 THE WITNESS: They want us to stay away from 17 the wetlands. They would always want a developer to do 18 that. Now, technically because those posts are not set 19 in concrete, the way -- the wetland rules are kind of 20 weird, they'll just be wooden posts in the ground. In 21 theory they could be where they are, which is very close 22 to the wetland, but the Department still has very big 23 problems with you digging holes in wetlands. So really 24 this is about as far out as it could go. 25 MAYOR McCARTNEY: And on the other side you

25 1 talked about the net required replacement 1400, but that 2 really would depend on, here we go. Net required 3 replacement 1493 trees over the requirement. So the 4 requirement is -- 5 THE WITNESS: Well, the requirements based 6 on the way your township does a replacement planted tree 7 ordinance. So this is giving the allowance to encourage 8 more deer fencing. 9 MR. AFRAN: Could the Mayor just speak up a 10 little bit, it's very hard to hear. 11 MAYOR McCARTNEY: I was discussing that last 12 slide, the net required replacement over the 13 requirement. You're saying that it's still an estimate 14 of 212 trees per acre, so what would be the requirement? 15 Will it be the actual count or the trees that come down? 16 THE WITNESS: It would be based on your 17 ordinance and quite honestly the negotiations that we 18 were working with, I don't have that in my head. 19 MAYOR McCARTNEY: Can we find out? 20 THE WITNESS: We can -- I'm sorry. We can 21 find out if we go back and look. I just don't have it 22 with me here today. 23 MAYOR McCARTNEY: Thank you. 24 CHAIRMAN BAGOFF: Mr. Klein. 25 MR. KLEIN: Can you go back to SP-11.	27 1 the east, looks like the deer will be blocked. The 2 neighbors to the north, it looks like it might funnel 3 towards them? 4 THE WITNESS: Not towards them so much but 5 they will come around this way. This is still vacant 6 land right now. There are no houses right here as of 7 yet. The -- will the deer move to other yards, 8 probably. That's what they're doing today. If there's 9 no forest they're moving around. Will it impact those 10 yards, well, there are three things that define what 11 deer impact will be. What have the neighbors planted in 12 their yard. If they planted hosta and the deer walks 13 through there today, they're probably going to eat it 14 anyway. If you plant something in your yard that a deer 15 likes, the fence is irrelevant. They're finding a way 16 to get there. If you plant things that are, and I want 17 to use the word, deer resistant, because there is no 18 such thing as deer proof, except apparently for 19 barberry, because deer when they're hungry, like 20 anything, will eat. So the answer to your question is, 21 will deer move, yes. Will they go to anywhere else to 22 eat, yes. But of the 77 percent of this land, let's 23 see, there's 33 acres deer fencing. 20 -- let's say 30, 24 just for math sake, that's 66 acres. There's still 60 25 acres of open space here the deer can walk around. It's
26 1 THE WITNESS: Yes, sir. 2 MR. KLEIN: So by putting the deer fence in 3 sort of blocking their path, how will that change the 4 migration, the traveling patterns of the deer? 5 THE WITNESS: You know, that's a good 6 question. Deer fencing does tend to impact migration. 7 The important thing here is the deer are moving, no 8 matter how you look at this, if there's no fencing there 9 the deer are moving freely like this. It's a total 10 random movement. There are deer paths that you will see 11 in here where deer have traditionally walked, say this 12 line. That's very common in a woodland. You'll see 13 where they walked through. It's hard to in this forest 14 because we don't really enough undergrowth for them to 15 collapse when they walk-through but they will walk 16 everywhere. It's a little hard to judge them, but you 17 can see it, you just have to look carefully. The deer 18 will have to do this or they'll go this way. Those are 19 that in here, there may be some that stay. The rest 20 will move around as they do today because the forage 21 isn't very good in here. There is forage but it's not 22 great. So they're moving around today, they will just 23 take a longer path. 24 MR. KLEIN: Will it affect -- how will it 25 affect the neighbors? In other words, the neighbors to	28 1 not like the whole site is being closed off. 2 MR. KLEIN: You also said that the fenced in 3 deer areas, the undisturbed area they can be used as 4 trails? 5 THE WITNESS: Well, this area has a number 6 of what I would call, it's not my judgment to say, but I 7 would call them, since I haven't walked it that often, 8 probably for lack of better term, they're illegal 9 trails, people using the property, but those trails 10 could be historic in going back 50 years for all I know. 11 They are human trails that have been cut through here by 12 use. I've seen occasional deer paths through here, but 13 that was because I went off trail and looked for where 14 the deer were going. So I was essentially tracking. 15 MR. KLEIN: But I mean, it's going to be 16 fence there, there would some gates? 17 THE WITNESS: For people. 18 MR. KLEIN: To be able to open the gate? 19 THE WITNESS: Yes, the residents -- there 20 will two sets of gates in here, at least, and it's up to 21 the applicant, all though the applicant has said to me 22 they expressed an interest not so much on this side 23 here, the east side, because of the steepness, but over 24 here to potentially make this a walking recreation area 25 for people in the complex so they could walk-through the

29 1 woods. 2 MR. KLEIN: But then the deer would able to 3 get in there? 4 THE WITNESS: The gate would have to be 5 locked behind you. This is not uncommon. Normally when 6 you want to use a deer fenced area we use what's called 7 a double gate. You've been to a dog park. The same 8 concept as a dog park. You lock the outer gate, then 9 open the inner gate. Could people make mistakes, I 10 can't -- I can't attest for human behavior, but it would 11 be a management company issue or they could of course 12 say, I'm going to lock it up and that's it. We just go 13 in for maintenance. As part of the settlement agreement 14 you should be aware this fencing must be maintained in 15 perpetuity by the applicant. This is not municipal 16 land. This is all going to be private property. 17 MR. KLEIN: That's it for me. 18 Thank you. 19 CHAIRMAN BAGOFF: Counsel President 20 Rutherford. 21 COUNCIL PRESIDENT RUTHERFORD: Thank you, 22 Mr. Chairman. Thank you, Mr. DeFeo. I have a few 23 questions. 24 So in the report you mentioned something 25 about the number of deer in the forest or something that	31 1 or you made some testimony about that. Can you refresh 2 my recollection on that? 3 THE WITNESS: Yes. The statement was during 4 negotiations, the question was, how can I get, and work 5 with the township to maximize preservation of the forest 6 and encourage regrowth of that forest. Having seen its 7 health status in this first time I went through it the 8 best way, as I know to go to, to regenerate a forest is 9 deer fencing. But as I stated, deer fencing on a linear 10 footage basis is very expensive to install and it's 11 often considered the last thing you want to put in 12 because of cost. Not because it doesn't work, but 13 because people don't want to spend the money, especially 14 for this style deer fencing. This isn't like what you 15 put in a backyard. Advice was to encourage the 16 applicant to fence more area. The negotiations -- in 17 the negotiations the recommendation was made and 18 accepted to give more credit for more acreage of deer 19 fencing. 20 COUNCIL PRESIDENT RUTHERFORD: So the, do we 21 have any data on the cost of the deer, to install this 22 deer fencing versus the cost to replace or replant the 23 trees? 24 THE WITNESS: The cost of the deer fencing 25 that I have calculated is about \$20 per linear foot. I
30 1 you observed. Can you just refresh my recollection of 2 what that number was? 3 THE WITNESS: I said in the few times -- in 4 the time I've been in that forest I have personally 5 counted, although I did not do a deer population survey, 6 but I did see more than ten deer during my observation, 7 which does not mean there aren't more, it just means 8 that when I was there that's what I saw. 9 COUNCIL PRESIDENT RUTHERFORD: So -- 10 CHAIRMAN BAGOFF: Ladies and Gentleman, we 11 are trying to listen, please. Thank you very much. 12 COUNCIL PRESIDENT RUTHERFORD: So that, you 13 determined the number in the forest by just walking in 14 the forest and observing the number that you saw? 15 THE WITNESS: No, I did not make a 16 determination. I stated that was my observation during 17 my visits to that forest. That's different than making 18 an actual statical survey. I did not do a deer 19 population survey. 20 COUNCIL PRESIDENT RUTHERFORD: So we don't 21 know how many deer are here? 22 THE WITNESS: No. 23 COUNCIL PRESIDENT RUTHERFORD: Okay. 24 The deer fencing, you mentioned that it is, 25 this is designed to encourage more area to be fenced in	32 1 did not calculate the total linear footage on 33 acres, 2 but the cost to replant the forest I will tell you most 3 likely would be less on the initial planting depending 4 on the saplings and seedlings you plant. However, you 5 would be doing that every year and every year they would 6 be eaten and destroyed, as they have been now. That's 7 why there are no seedlings in the forest, or very 8 little. 9 COUNCIL PRESIDENT RUTHERFORD: All right. 10 Just a moment ago the Mayor asked a question 11 about the net number of required trees to be replaced. 12 It's one of your slides. Top of the slide says, Tree 13 Preservation Restoration Plan. 14 THE WITNESS: Yeah, this one. 15 COUNCIL PRESIDENT RUTHERFORD: It says, net 16 required replacement is 1498 trees over the requirement. 17 THE WITNESS: Correct. 18 COUNCIL PRESIDENT RUTHERFORD: I didn't 19 understand that answer. 20 THE WITNESS: The answer was, I don't have, 21 it was based on your tree ordinance. I just don't have 22 what the required calculation is based on that ordinance 23 at the time of negotiation, which is how this came 24 about. I don't have that baseline in front of me, but 25 that's what it is based on.

33 1 COUNCIL PRESIDENT RUTHERFORD: So, so it was 2 based, the number, the net number, and I'm a layman so 3 you got to help me understand this. The net number of 4 required trees to be replaced is almost 1500 more than 5 what the ordinance would have required at that time? 6 THE WITNESS: No, it would be less. We're 7 giving credit for 279 native trees. They're getting a 8 credit of 7123 trees for the deer fencing based on the 9 density of trees and acreage that's being deer fenced. 10 That is 1500 trees more than they would have been 11 required to replant. So this number would be 1500 less 12 is the point. We're giving -- the credit given to deer 13 fencing is designed to maximize the forest. Sorry. 14 MS. MCGOVERN: I just want to confirm, 15 you're talking about the ordinance, are you talking 16 about the ordinance for, for this zone or are you 17 talking about the tree ordinance? 18 THE WITNESS: The tree ordinance. 19 MS. MCGOVERN: That was in general for the 20 whole town? 21 THE WITNESS: In general for the whole town. 22 MS. MCGOVERN: That was what the Chairman 23 handed you a copy of, the ordinance for this zone, so 24 that's different? 25 THE WITNESS: No, that's --	35 1 THE WITNESS: That's correct. 2 COUNCIL PRESIDENT RUTHERFORD: Okay. 3 I just want to understand, that doesn't seem 4 logical to me. 5 THE WITNESS: Well, you have to understand 6 the condition of the forest. Right now you have a 7 forest that effectively, for practical purposes, is in 8 decline. If you want to regenerate and bring that 9 forest back you must do something. So you can do any 10 number of things, there are lots of plans and lots of 11 programs that are used to regenerate forests, many are 12 unpopular. For example, in the South Mountain 13 Reservation, I'm sure you've all heard of deer hunts. I 14 don't think that would be highly popular, but it 15 certainly would help, if you were in a pure mathematical 16 perspective. 17 I will say to you at Duke Farms, their 18 program it required taking out hundreds and hundreds and 19 hundreds of deer, because that's the only way in their 20 mind, because that has a different plan. That's not 21 part of this. However, what we do know is deer fencing 22 on its own will work, does take time, obviously. And we 23 know it's extraordinarily expensive. Planting a tree is 24 not that expensive. Planting a tree that will be killed 25 is not much value. It doesn't regenerate the forest.
34 1 MS. MCGOVERN: So that is not good. Okay. 2 THE WITNESS: No. 3 COUNCIL PRESIDENT RUTHERFORD: So what is 4 the formula? 5 THE WITNESS: I don't have the formula in 6 front of me for the ordinance. 7 COUNCIL PRESIDENT RUTHERFORD: No, what is 8 the formula used to determine the credit for the deer 9 fencing? 10 THE WITNESS: 212 trees per acre times 30 11 acres. 12 COUNCIL PRESIDENT RUTHERFORD: So -- 13 THE WITNESS: I mean, you can't use 212 per 14 acre to calculate the number of trees removed without 15 giving the same credit to put them in. So it's an 16 equivalent value either way. 17 COUNCIL PRESIDENT RUTHERFORD: So the deer 18 fence credit is 212 trees per acre that's fenced in? 19 THE WITNESS: Correct. 20 COUNCIL PRESIDENT RUTHERFORD: And that gets 21 you 7000 trees? 22 THE WITNESS: Correct. 23 COUNCIL PRESIDENT RUTHERFORD: So by not 24 planting a single tree or shrub or anything else, this 25 applicant gets a credit for over 7000 trees planted?	36 1 It does nothing for the forest really. This, giving 2 them a credit, offsets the cost of that deer fencing, 3 which is extraordinarily expensive. Again, we're not 4 talking about putting in a nylon fence on plastic posts. 5 We're talking about a New Jersey Department of 6 Agriculture approved designed deer fence, and as you saw 7 that's galvanized wire. The more you know metals, 8 galvanized wire is expensive, on wooden posts with cross 9 supports. This is not something you just put in. The 10 \$20 per linear foot by the way I believe was for the 11 fencing not for the installation. Plus posts. 12 COUNCIL PRESIDENT RUTHERFORD: You said, you 13 mentioned something in your testimony that the 14 settlement agreement allows more trees to be taken down 15 than actually are, did I hear that right? 16 THE WITNESS: Yes, because in the settlement 17 agreement they were allowed, if I recall, I don't have 18 that in front of me right now, but it is that they only 19 had, number one, put in 30 acres of deer fencing and 20 they were allowed to disturb over 30 acres of land. I 21 would defer to the planner for the exact numbers, but 22 they have proposed less than 30 acres of disturbance. 23 So therefore there is less trees down. 24 MR. KLEIN: And more fencing? 25 THE WITNESS: And more fence. They proposed

37 1 3.6 acres more deer fence and I want to say 2.3 acres 2 less of disturbance, plus or minus. So equivalently 3 that's like saying six acres less of any disturbance. 4 Which is significant acreage. 5 COUNCIL PRESIDENT RUTHERFORD: Mr. Chair, or 6 perhaps to our board attorney, we've heard this 7 settlement agreement being referenced multiple times in 8 the testimony by various people, including Mr. DeFeo 9 tonight. Is the planning board a party of that 10 settlement agreement? 11 CHAIRMAN BAGOFF: It is not. 12 COUNCIL PRESIDENT RUTHERFORD: Are we bound 13 by that settlement agreement? 14 MS. MCGOVERN: What you're bound by is the 15 ordinance that was drafted as a result of the settlement 16 agreement. So this ordinance came and was passed by the 17 council, whenever that was, back a few years ago and 18 that's what the planning board is reviewing, whether 19 this application meets the standards that have been set 20 in that ordinance and a lot of the references to the 21 settlement agreement are the rational and basis for why 22 that ordinance was drafted the way it was. 23 CHAIRMAN BAGOFF: And the ordinance created 24 the zone, IH-1 zone. So they're looking at the 25 requirement of the IH-1 zone.	39 1 contained in the zoning ordinance? 2 MS. MCGOVERN: Yes. So a lot of what's 3 approved in the zoning ordinance was adopted in the 4 ordinance. 5 COUNCIL PRESIDENT RUTHERFORD: Understood. 6 MS. MCGOVERN: It's really the ordinance 7 that governs. 8 MR. AFRAN: Yeah, I think Council President 9 Rutherford's question goes to the question, is the 10 settlement agreement itself binding as a separate entity 11 from the ordinance and I'm not sure, Ms. McGovern, your 12 answer, with due respect, necessarily explains this. 13 The question I think is, is the settlement agreement a 14 part of the ordinance or is the ordinance standing 15 separately on its own? 16 MS. MCGOVERN: I'm looking at the ordinance 17 separately. 18 CHAIRMAN BAGOFF: The settlement agreement 19 created the ordinance. 20 MR. AFRAN: Well, what is fair, adopted 21 elements of that. The question I think Council 22 President is asking is to what extent is the settlement 23 agreement itself a binding document on the board. 24 MS. MCGOVERN: This board had nothing to do 25 with the settlement agreement. The board is following
38 1 COUNCIL PRESIDENT RUTHERFORD: All right. I 2 just wanted to be clear because it's been referenced 3 several times and some cases it did say that the 4 settlement governed. I want to be clear that that is 5 not the case. I know Mr. DeFeo didn't say that, it's 6 been said in prior testimony. 7 MS. MCGOVERN: It governs because it was the 8 basis for the ordinance. So it's the genesis of the 9 ordinance. And you're following -- the planning board 10 is required to follow the ordinance requirements for the 11 zone. 12 CHAIRMAN BAGOFF: Part of anything, any part 13 of the Master Plan has a place in it. 14 COUNCIL PRESIDENT RUTHERFORD: I see. I 15 just wanted to be clear about our responsibility or, you 16 know, requirement to follow the settlement agreement. 17 MS. MCGOVERN: Mr. Plocker. 18 MR. PLOCKER: No, and I thank Council 19 President Rutherford because I think it's important. 20 Mr. DeFeo did reference the settlement agreement 21 multiple times, but can we just confirm so there is no 22 confusion going forward so everyone here is on the same 23 page and we have a clear record. The calculations that 24 Mr. DeFeo referred to, the 212 per acre and all the 25 numbers and the credit, I just want to confirm that is	40 1 the ordinance -- 2 MR. AFRAN: Of course it didn't. 3 MS. MCGOVERN: -- and I think a lot of the 4 crossover has to do with the fact that a lot of the 5 information in the settlement agreement is replayed in 6 the ordinance. 7 COUNCIL PRESIDENT RUTHERFORD: And what 8 would be helpful for me if instead of all these 9 references to the settlement agreement, which all of us 10 have now heard for months, that we would then reference 11 the ordinance instead of the settlement agreement. 12 Especially when there may be some confusion or there may 13 be elements in the settlement agreement that's not in 14 the ordinance. 15 CHAIRMAN BAGOFF: That's a very good point. 16 We will continue to do that. 17 MR. PLOCKER: And one thing I can represent 18 is that the ordinance was a -- a draft of it was 19 attached as an exhibit to the settlement agreement and 20 the town council adopted that ordinance in that form. 21 MS. MCGOVERN: Yes, so that is part of the 22 crossover. So the ordinance was attached to the 23 settlement agreement but the board is reviewing this in 24 terms of following the ordinance. 25 COUNCIL PRESIDENT RUTHERFORD: Understood.

41 1 MR. AFRAN: Thank you. 2 COUNCIL PRESIDENT RUTHERFORD: Mr. DeFeo, 3 you mentioned South Mountain Reservation, which is a 4 property nearby, I assume all of us are familiar with 5 it. Are there any other spaces near by that use deer 6 fencing? 7 THE WITNESS: In terms of -- excuse me. In 8 terms of deer fencing you're saying. Top of my head -- 9 well, I consider Hillsborough nearby, you might not, but 10 Hillsborough would be the largest example I know of. 11 Otherwise they're randomly throughout. Certain gardens, 12 I can't speak specifically of each one, botanical 13 gardens or horticultural gardens will often use deer 14 fencing to protect in this area. I didn't go look at 15 them. The ones I know of are the two I cited because 16 they're the largest that I know of. 17 COUNCIL PRESIDENT RUTHERFORD: Is there data 18 from either South Mountain or Hillsborough that shows 19 over the course of time the growth of the undergrowth in 20 the forest? 21 THE WITNESS: Oh, I just gave you 22 photographic evidence, that's all from Duke Farms. 23 COUNCIL PRESIDENT RUTHERFORD: That's a 24 picture, is there data? 25 THE WITNESS: You can go to Duke Farms	43 1 years you will see basically a new forest growing within 2 the old forest and the deer no longer did damage. 3 That's about as short a summary I could give you. But I 4 would happily attach it and give you an amended report 5 going forward. 6 CHAIRMAN BAGOFF: I'm going to request that 7 he send this to our secretary. It would be posted on 8 our website and provide it to Mr. Afran and Mr. Plocker. 9 THE WITNESS: Be my pleasure. 10 COUNCIL PRESIDENT RUTHERFORD: My last 11 question, Mr. DeFeo, at least for now, would be, is 12 there any data with regard to projects similar to this 13 one where you have an old growth undisturbed forest that 14 gets developed utilizing deer fencing or a portion of 15 it, with regard to storm water runoff? You mentioned in 16 your testimony that the undergrowth will act like a 17 sponge, is there any data around that? 18 THE WITNESS: There is. I did not include 19 it in my report, it wasn't part of what I was looking 20 for. I'm happy to look up those reports for you and 21 give you, again, a supplemental report showing that new 22 growth absorbs water at a faster rate than older growth. 23 That's a finding that's out there. I would gladly do 24 that. 25 CHAIRMAN BAGOFF: So I would request that,
42 1 website and you can read a study of their deer fencing 2 project. You know, go right to Duke Farms Foundation 3 and you would find their studies right there. I mean, I 4 can get it for you. 5 MR. AFRAN: With respect, I would raise an 6 objection to the suggestion that the board -- 7 CHAIRMAN BAGOFF: Mr. Afran. Go ahead, sir. 8 MR. AFRAN: With respect to Mr. DeFeo, he's 9 not a lawyer, I understand that. 10 THE WITNESS: Thank you. 11 MR. AFRAN: I would raise an objection to 12 the suggestion that the board may independently look at 13 website discussions that are not being offered into 14 evidence. 15 MS. MCGOVERN: He raises a good point. Mr. 16 DeFeo do you want to like summarize, just summarize 17 briefly what those findings are, if you have them here, 18 if not we can introduce it as an exhibit later on. 19 THE WITNESS: I can certainly do both. In 20 brief the study at Duke Farms, and they had a, I was not 21 able to attend it, but about two or three years ago they 22 had a seminar on this as well and I did talk to one of 23 the people giving the seminar. Their findings were that 24 within three to four years you had significant 25 undergrowth come back into the forest. In three to five	44 1 Mr. DeFeo. 2 MR. KLEIN: Quick follow up. 3 CHAIRMAN BAGOFF: Mayor McCartney and then 4 Mr. Klein. 5 MAYOR McCARTNEY: I was going to say that 6 the County can also provide their findings on the deer 7 fencing that they used in South Mountain. 8 CHAIRMAN BAGOFF: We're going to let Mr. 9 DeFeo do that, but thank you, Mayor. 10 THE WITNESS: I'm happy to look at that as 11 well. 12 CHAIRMAN BAGOFF: Mr. Klein. 13 MR. KLEIN: Are there different coefficients 14 of runoff and things? Would you say the existing forest 15 and condition that it's in has a certain absorption 16 value or certain runoff value and then three to five, 10 17 years from now it will have a different runoff or 18 absorption value and it would be a greater absorption, 19 less runoff. Is that -- I know gravel is different than 20 asphalt, different than grass, different than -- 21 THE WITNESS: Grass is not a whole lot 22 different than gravel and asphalt quite honestly. But, 23 yes, there are such studies, I don't have them. I 24 didn't research them for this. I couldn't give you 25 those numbers or coefficients, but I'd have to go

45 1 research them separately, I didn't look for that in this 2 case. That's based on my knowledge and experience and 3 observation. 4 CHAIRMAN BAGOFF: Okay. 5 COUNCIL PRESIDENT RUTHERFORD: That's it for 6 me, sir. 7 THE WITNESS: I'm sorry, excuse me for one 8 second Mr. Chairman, if I may. There was a third thing 9 you asked me to look up and was that, what the Mayor 10 asked. 11 MAYOR MCCARTNEY: Essex County. 12 THE WITNESS: Essex County. I just want to 13 make sure I get it right. 14 COUNCIL PRESIDENT RUTHERFORD: That's if for 15 me, Mr. Chair. 16 CHAIRMAN BAGOFF: Thank you Council 17 President. 18 Vice Chair Guarino. 19 VICE CHAIRMAN GUARINO: Thank you, Mr. 20 Chairman. 21 Mr. DeFeo, quick question. The current 22 invasion of nonnative North American pests, i.e. spotted 23 lantern and Joro spiders coming into the area and the 24 effect with the forecast and current moisture and rain 25 distrubution, what kind of effect did that have or did	47 1 common sense. It is basic science. The, can I say what 2 will happen as we go forward if we have droughts 3 evisceration in perpetuity, well it wouldn't make much 4 difference if there was deer fencing or not, because 5 nothings going to grow anywhere. We have to, 6 truthfully, you have to hope for some rain. That's the 7 best we can hope for. Clearly it will slow it down. 8 Invasive species, clearly emerald ash borer, wiping out 9 our ash trees. Spotted lantern fly doesn't, per se, 10 wipe out a particular species. The key is to get rid of 11 invasive like Ailanthus, which is a host species. We'd 12 like to make sure that doesn't occur. I didn't see much 13 Ailanthus in that forest, which is good. But getting 14 rid of invasive species helps, because invasive species 15 are often hosts for invasive insects and that's 16 something that we would like to reduce. 17 VICE CHAIRMAN GUARINO: Okay. Thank you, 18 Mr. DeFeo. 19 Thank you, Mr. Chairman. 20 CHAIRMAN BAGOFF: Mr. DeFeo, is there any 21 federal or state organization that the applicant can be 22 supplied with seedlings to replant in the forest to help 23 move things along? 24 THE WITNESS: There are programs run by the 25 Department of Environmental Protection each year and the
46 1 you take into consideration in your forecast for 2 reforestation and regeneration? 3 THE WITNESS: Well, I don't know of anyone 4 that's done a particular study on this level drought in 5 New Jersey and the impact. Clearly you're not going to 6 have seed germination at this time of year as a rule 7 anyway, we're going to the end of the growth season. 8 Secondly, in this kind of a drought 9 obviously seeds cannot germinate, that's basic science 10 101. 11 As far as the change in climate going 12 forward and the invasive species, certain invasive 13 species of course are a host. The spotted lantern fly, 14 the good news this year, believe it or not, we haven't 15 been stomping as many spotted lantern fly's as we have 16 over the past few years. There are, we don't quite know 17 why, but we are finding that to be good news. We have 18 found that some native spiders and native insects are 19 eating spotted lantern fly's and some bird species, I 20 guess, they're acquiring a taste. We will have a new 21 spider coming in soon that also has a taste for them, 22 you probably have heard about. A very large spider. 23 Harmless, but likes them, which is good. 24 As far as the impact of regeneration of the 25 forest. It clearly would slow it down and that's just	48 1 Department of Agriculture give out seedlings. I'm not 2 certain a commercial developer or professional developer 3 would be eligible for them for free, but there are 4 programs federally and on the state level for that. I 5 haven't looked into the specifics. They're typically 6 designed for homeowners and towns looking to do local 7 parkland. 8 CHAIRMAN BAGOFF: Can you look into that and 9 see whether the developer and/or the town could find 10 that out and start replanting as part of this project? 11 Mr. Alper. 12 MR. ALPER: Thank you. 13 Mr. DeFeo, I'm going to apologize, I'm going 14 to jump around back to some of your testimony and things 15 in your written report and a lot of sort of questions 16 that Council President Rutherford had. 17 First, the idea of the tree credit for the 18 fenced area, is that common in projects like this? 19 THE WITNESS: It's a very good question. 20 Projects like this are not common. I have not seen, and 21 I've spoken to environmental chairs from multiple towns 22 and planners from multiple towns and counties that I 23 work with or know over the years, and I said, has anyone 24 ever had this type of ordinance, I won't use the word 25 settlement agreement again, this type of an ordinance

49 1 with the environmental safeguards of this type, with 2 this type of mandate done before, because when I started 3 these negotiations the first step I made was to contact 4 colleagues and say, hey, I've been asked to do this 5 negotiation, I've never seen literature, have you. No. 6 To tell you how much no one has seen it is, I'm going to 7 use the word settlement agreement again because I don't 8 have the ordinance, but the negotiated pages from the 9 environmental settlement element, the one section that 10 says, environmental, I have been e-mailing around the 11 state to other colleagues who have asked for it. And in 12 fact even in my own town we now use it as a handout for 13 developers as a guideline. So the short answer is, no. 14 MR. ALPER: So it's a unique idea? 15 THE WITNESS: I don't want to take credit, 16 again, for it's a unique idea, but I give your town 17 credit for pushing for the question and saying, make the 18 environmental concessions part of this somehow. 19 MR. ALPER: Is there anything that DEP would 20 deny even if they even if they can deny, the ability to 21 put a fence, especially on the wetlands side? 22 THE WITNESS: So we're not going into the 23 wetlands, so we're fine there. Even if we were in the 24 limited, the zone where we have a buffer zone to a 25 wetland, we would still technically be fine under the	51 1 deer counts and they would come in, it's not exactly 2 like a tree survey because of course deer move, but we 3 would do that kind of a count and come up with a density 4 per acre. You could read, I can get it for you, but if 5 you look at South Mountain Reservation, they've done a 6 deer density survey there. Duke Farms, anyone that has 7 deer problems does a deer density survey. Any survey I 8 have read for anywhere in Essex County says we have too 9 many deer per acre. 10 MR. ALPER: Would you recommend one be done 11 as part of this project? Is it important to know the 12 actual number or actual count on density? 13 THE WITNESS: In my opinion, no. I'd be 14 happy to research it further. I don't see that this has 15 enough impact on the deer population. The deer 16 population is impacted by many factors and one of them 17 is just general development. 18 MR. ALPER: Okay. 19 Is it possible there's something other than 20 the deer, the underbrush disease, people partying in the 21 woods, human evidence that you've seen on the trails? 22 THE WITNESS: I'm sorry, could you repeat 23 that. 24 MR. ALPER: Is it possible something other 25 then the deer is contributing to the loss of underbrush
50 1 Wetlands Act. If I put a wooden post into the buffer 2 zone, I'm okay. If I put a wooden post in concrete in 3 the buffer zone, I'm in trouble. It's a strange little 4 -- 5 MR. ALPER: Even if it's in concrete? 6 THE WITNESS: Correct. Nothing permanent is 7 the answer to your question. 8 MR. ALPER: On the deer, would it be 9 reasonable to expect displaced deer could become a 10 problem here, not just in the yards, but in terms of 11 traffic and cars, collisions, that sort of thing? 12 THE WITNESS: You know, I would suggest to 13 you that the deer are already a problem for traffic in 14 neighboring yards. We're not talking about -- again, 15 there's 60 acres for them to roam in and eat on that 16 property and continue to eat. I don't have a density of 17 deer per acre, but I know if you look at South Mountain 18 Reservations density of deer per acre it's way to high. 19 They will move, there is no doubt about it. Will they 20 be a greater traffic problem than they are today, I 21 couldn't answer your question. 22 MR. ALPER: If it was desired to get a deer 23 population survey, how would that take place? 24 THE WITNESS: You'd have to hire a wildlife 25 surveying company, somebody that specializes in doing	52 1 that if you were to contain so that in which case maybe 2 deer fencing would destroy the underbrush because of 3 disease, like with the trees or it's human activity 4 traveling? 5 THE WITNESS: The human activity that I've 6 observed over the last four years, plus or minus, tends 7 to be very confined to very specific sites. Sites that 8 are boarded by rock and bolder, places where people 9 could hide. I don't want to get into anything else but 10 the number of beer cans I saw would imply there was 11 illegal drinking there. The illegal deer stands. Zip 12 lines that were from tree to tree. My favorite was a 13 motor cross course that was built between the trees and 14 that one I don't understand. But that -- the impact 15 would be very localized. The impact of lack of 16 undergrowth is throughout the forest and humans aren't 17 going at that level throughout the whole forest. 18 MR. ALPER: Okay. 19 How much maintenance does large scale deer 20 fencing need? 21 THE WITNESS: It really all depends on the 22 weather. Galvanized deer fencing is going to last a 23 long time. Galvanizing is an old process and it tends 24 not to rot out. If something falls on it, i.e. a tree 25 falls, that needs maintenance. The posts, I did check

53 1 at Duke Farms, their wooden posts have been in the 2 ground in some cases over a decade without any rot. So 3 I would say limited maintenance short of destruction by 4 weather, that I can't make a prediction here. 5 MR. ALPER: Is it feasible to have a 6 maintenance manual for that, sort of like you have to 7 have a maintenance manual for storm water systems? 8 THE WITNESS: In the report that I submitted 9 to the planning board you will see the New Jersey 10 Department of Agriculture requirements for the deer 11 fencing and that will reference what needs to be done. 12 MR. ALPER: Okay. 13 I think you were asked about this. Any idea 14 how long it would take the undergrowth in the fenced 15 area, as it starts to regenerate, how long would it take 16 for it to absorb as much water as the trees and whatever 17 underbrush is removed from the destruction? 18 THE WITNESS: Well, you're looking really at 19 two questions. The short answer is, I couldn't tell you 20 the exact absorption rate as I mentioned earlier. There 21 are such formulas for such things. But the general 22 consensus would be, number one, as of right now in the 23 deer fenced area you're not going to lose trees. No 24 ones cutting them down. So all this would do is be an 25 additive. Where trees are being removed, you heard	55 1 require, but I do recommend that we can do what's called 2 a GIS overlay or GPS overlay where using exact data 3 points of latitude and longitude we can identify tree 4 locations of species and particular trees that are of 5 unique value and therefore see if those trees, for 6 example we could set a parameter, every tree over 36 7 inches, and I'm just picking a number by they way, I'm 8 not telling you that is the number. But we could say we 9 want to know every tree of greater than 36 inches in the 10 area of disturbance and which of those we might be able 11 to preserve. I would recommend that that is a good 12 thing to do, it is not very expensive, it is very quick 13 to do and it would definitely give us more. Does that 14 mean all those trees would be saved, absolutely not. 15 Doesn't mean that all. If it's in the middle of a 16 building it's not going to be there. But it gives us 17 another point of reference to look at because those 18 mature trees become seed trees going forward. 19 MR. ALPER: Can you, just for the publics 20 edification and ours, can you mention your other 21 suggested conditions? 22 THE WITNESS: I'm sorry, can you say that 23 again. 24 MS. MCGOVERN: For the record, your reports 25 dated October 16, 2024.
54 1 significant testimony regarding storm water regulations 2 and storm water design, that water is contained 3 separately. The areas of the deer fencing will increase 4 water absorption on those slopes over time. Using the 5 data I've seen at the Duke Farms Foundation and 6 elsewhere, within three to four years you're going to 7 have significant undergrowth coming in. That's 8 significant new plant growth which should increase 9 absorption very quickly. As to absolute numbers, I 10 can't give you those. 11 MR. ALPER: There's a mention in your 12 written report about using some GPS maps to point out 13 specific trees to possibly preserve, is that something 14 we can require as a condition? 15 THE WITNESS: Yes, and I apologize, I did 16 not actually reference my report per se. I was 17 referencing the PowerPoint. In my secondary report I do 18 make three recommendations for you that are in response 19 to questions that have been raised by this board and by 20 residents. The first one being what can we do, all 21 though this is a indirect response, what can we do to 22 protect trees that are in the disturbed area. Because, 23 again, it doesn't per se have to be clear cut 24 necessarily. I am recommending, I don't know that you 25 can require, I defer to counsel what you can and can't	56 1 THE WITNESS: Is that what you're asking, 2 date of the report? 3 MS. MCGOVERN: I just want it as a reference 4 point. I wanted it to be on the record what we were 5 talking about. 6 THE WITNESS: And what was your question? 7 MR. ALPER: I was looking for your three 8 other conditions you recommended. 9 THE WITNESS: Oh, yes. Well, in that, and 10 I'll restate it just for the record, October 16, 2024 11 report which was submitted, what we did here is two 12 things in this report. One, it updates the 2019 tree 13 study with 2024 field observations. We did not repeat 14 the tree count, because there was really no need to do 15 so. The forest has changed virtually not at all in 16 those years. And in that situation what we noted, again 17 consistently, because this was raised by the public, has 18 the forest changed. Have you looked at the forest 19 again. The finding is that there is still lack of 20 understory growth. There are very few shrubs, seedlings 21 or wild flowers. As I noted earlier the primary finding 22 of shrubbery in that area is what we call Japanese 23 barberry, which is a highly invasive plant. 24 Unfortunately, just as a side note, still sold at most 25 garden centers in New Jersey, which I do not understand,

57 1 and we have indicated in this report that our 2 measurements showed at least 80 to 100 yards of clear 3 viewing. Now, what that means is there is nothing 4 blocking my view but large trees for every 80 to 100 5 yards, which means if you were standing 100 yards away 6 from me I could probably see you. In a healthy forest 7 that should not occur. I should not be able to see you 8 100 yards away. Again, as I have noted in my 9 observation, we saw ten deer in that one survey. The 10 forest consists, as we said, of mostly large trees in 11 the observation walk through that we did in 2024 because 12 we weren't being specific to plots that were 13 specifically identified. We did notice a couple one and 14 two inch seedlings and saplings I should say. They're 15 not seedlings at that point. So we did notice some 16 saplings. We also, because, again, the question was 17 raised, we did a little more identification of some of 18 the tree species, I will not go through the Latin names 19 that are in the report, but you can look them up. 20 Numerous species of oak, that makes sense, this is an 21 oak mixed hardwood forest which is common to this part 22 of New Jersey. We noticed multiple maples, hickories. 23 We also noted pleasantly and surprisingly some flowering 24 dogwoods as an understory tree. They are fairly large, 25 which means they survive the deer. Unfortunately also I	59 1 would help. 2 The other findings that we made, there were 3 questions raised on two other issues here. One was 4 there was some concern over the observation of the 5 ventilation grates I believe they're called, is that the 6 correct term for the parking garages. There was some 7 concern over those ventilation grates and the 8 observation of them. So I did a little bit of research 9 and submitted it with this. Some suggestions, there are 10 some native, it's going to be tricky, indigenous to the 11 east coast, vines, some of which are evergreen, I mean, 12 they' don't lose their leaves. Some of which have great 13 flowering capacity for humming birds. The most common 14 ones live further south, but are moving north. So you 15 could say, are they native to New Jersey, it gets into a 16 fight, they're going to be. But they're native to the 17 United States and they could be planted and going to, I 18 believe it was the Chairman who raised it, but they 19 could go in and hide the grates and allow for 20 butterflies. 21 Also there was a question raised on 22 pollinator gardens, so I'm suggesting that we get the 23 applicant to look at the species, and I put a species 24 list in this report that they could look at and pick 25 them. Not saying pick this one, but they could put
58 1 would point out to you, sadly that flowering dogwood is 2 subject to a disease called anthracnose, which is a 3 fungus and unfortunately we're losing a lot of 4 flowering, native flowering dogwoods as well. They have 5 a shot of surviving, it's not something -- it's native. 6 It's a native disease, we think they'll survive. 7 We did also notice American beech, which I 8 did mention to you as being a tree that I do not expect 9 to see there within a decade or two at most, because of 10 beech leaf disease. 11 Black cherry, good understory tree and 12 sassafras, also an understory tree. We did notice a few 13 of those. Those are good signs. It's a fairly diverse 14 forest, as I said, what we would call an oak mixed 15 hardwood forest that's native to New Jersey and this 16 part of New Jersey. 17 Also in the walk-through, as I said, we did 18 notice beech leaf disease. We did see some very large 19 trees, we took some very few measurements just to 20 reiterate, and we have some really good size trees, 24 21 to 36 inches in diameter. That's a big tree. That's a 22 really good sized tree. 23 We also put in there that we give you our 24 conclusions. We talk about, again, excessive deer 25 browse, I'll just reiterate quickly that deer fencing	60 1 together certain species to maximize pollinators, 2 butterflies, bees, etc., for the area where they might 3 want to put those gardens. But that's all part of this 4 in trying to be, in answering the October 16 report, to 5 the questions raised by this board. 6 MR. ALPER: I appreciate it. 7 I think that might be all I have. Yes, 8 thank you. 9 CHAIRMAN BAGOFF: For housekeeping, ladies 10 and gentleman on zoom and in the audience, this report 11 was provided to the township and is on the township 12 website as a link. You can download it or open it 13 yourself and at this time I'd like to ask the applicant 14 or Mr. Plocker, would you agree to Page 3, having a 15 chance to look at that October 16, 2024 report, the 16 three recommendations by Mr. DeFeo on those pages? 17 Applicant seems to be signifying saying yes. 18 MR. PLOCKER: Oh no, I did receive and 19 review them, but I think your question is, as a 20 condition of approval would the applicant agree to those 21 recommendations? 22 CHAIRMAN BAGOFF: Yes, that's what I'm 23 asking. 24 MR. PLOCKER: That's correct, we do. 25 CHAIRMAN BAGOFF: Okay. Good. Thank you so

61 1 much. 2 MR. ALPER: And I think the one thing 3 concerning the GIS overlay and tagging of specimen trees 4 or what have you, is that we would hopefully not just 5 note where the 36 or 40 inch tree is but we'd say 6 there'd be a process by which we could say, wait a 7 minute, this one and this one are under the middle of a 8 building, that's a problem. We can't do anything about 9 it but this ones alongside a road where we can maybe 10 adjust it. 11 MR. PLOCKER: Sure. And just for the 12 record, it's always been the applicants position that 13 when in the field happenings, if there is an approval 14 and we are in the field, we are committed to work with 15 the town, whether that be Mr. DeFeo or anybody else the 16 town chooses to discuss these issues to determine what 17 the best species and best course of action is when we're 18 actually in the field putting stuff in the ground. 19 CHAIRMAN BAGOFF: Thank you. 20 Mr. Wilkes. 21 MR. WILKES: Umm, yes. Can you just give me 22 another explanation for the deer fence credit? Just 23 trying to understand it better. How you got to your 24 number. 25 THE WITNESS: There -- basically we say	63 1 shrubs and native grasses and wild flowers. As they 2 mature, and by the way, just going back to just 3 reiterate, going back to an earlier question I believe 4 by Mr. Morgan, you know, yes, we have drought, but these 5 areas I suspect to be irrigated, which will give what's 6 planted a good chance of survival. As the seeds start 7 to grow in here and fill in this place with seedlings 8 you will have more absorption of water because you have 9 more plants. This is not a mathematical question, it is 10 more plants mean more water absorption if it's on a 11 steep slope. This area is less sloped, of course. 12 That's the basis of the formula. The credit, as I said, 13 based on tree per acre -- excuse me. Goes back to the 14 cost of this deer fencing. This is not an inexpensive 15 agreement for the applicant and as I stated earlier to 16 Mr. Alper, I know of no other settlement, sorry, 17 ordinance that incorporates anything like this. I am 18 not saying they don't exist, I just don't know of any 19 and I have asked all over the state. 20 MR. WILKES: Okay. 21 THE WITNESS: Does that answer your question? 22 MR. WILKES: Yes, somewhat. Some what. 23 Now, this is really asking the question that really 24 doesn't have much of an answer, like you said, it's not 25 done by anybody else before, so not much to go on. But
62 1 there are 212 trees per acre in that forest, that's our 2 estimate of the highest density. Now, as I said earlier 3 we use that highest density number from all different 4 tree plots to calculate the potential damage or 5 potential removal, because that made it look as bad as 6 it could look. To be fair, if I was trying to encourage 7 someone to spend a lot of money to do deer fencing and 8 preserve a forest, I need to give that equivalent credit 9 for the acreage protection and say those same makers 10 have that same density and that's where you get to that 11 number. 12 MR. WILKES: Okay. 13 And so when we're talking about where the 14 deer fencing is, you're saying where the areas are going 15 to be protected is kind of acting like a sponge, is that 16 what you're saying? 17 THE WITNESS: Yeah. Let me go back to this. 18 Okay. Sorry again about that. Technology is a 19 wonderful thing. 20 In this deer fenced area as we're saying, 21 within two to three, four years tops, this areas going 22 to be heavily regrown with light growth, understory 23 growth. Perhaps tree seedlings, shrubbery, flowers, 24 etc. Remember, this area here that's being disturbed is 25 being relandscaped with all native species of trees,	64 1 what I am a little concerned about is that, I think Mr. 2 Alper asked the question, about what is your 3 recommendation, are they going to be able to do enough 4 for the other areas. So those areas are really acting 5 as a sponge, are we just looking at the rest of the area 6 deteriorating without really doing much to help. What 7 is the applicant -- what do you recommend the applicant 8 do to maybe, I'm thinking about what you asked, as well 9 as what are your plans, exactly what you recommended for 10 them to do? 11 THE WITNESS: Are you talking about this 12 light green area on the other side of the deer fencing? 13 MR. WILKES: Yes. Yes, on the other side of 14 the deer fencing. 15 THE WITNESS: That areas going to remain the 16 way it is today. You know, perhaps somewhere down the 17 road working with the manager, I can't say it is going 18 to happen, all sorts of things can be done. But it will 19 grow the way it's growing today. The trees that are in 20 here, short of the species that I've already identified, 21 such as American beech and ash, those trees are healthy 22 in this area and in some cases some of the oaks in this 23 area probably have another 100 years of life, you know. 24 Most of them, other than ones that are infected, as I 25 talked about, could live anywhere from 100 to 150 years.

65 1 I'm not certain, I'm reasonably certain I won't be here 2 in 150 years to see what happens to it, but I can't tell 3 you what will happen that far down the road. What I can 4 say is deterioration shouldn't, shouldn't, again, 5 there's no absolute number to this, shouldn't be any 6 worse than it is today. In fact it might get better 7 because you have so many new plants going in to reseed, 8 it's conceivable, with no promises, that enough new 9 plants will grow in a similar fashion to my seeing some 10 young saplings in there that enough might start to 11 survive because of everything else going on and by sheer 12 number I might have a healthier forest. I have a 13 chance, let me put it that way. 14 MR. WILKES: Okay. We're really going based 15 on what you had mentioned in your testimony earlier that 16 if you don't do anything it's going to get worse. So 17 that's why I want to be able to have something in place 18 to protect that. 19 THE WITNESS: Well, that's why we have the 20 deer fencing here. Because that gives use a base of a 21 seed bank. 22 MR. WILKES: Okay. 23 THE WITNESS: That's a starting point. Now, 24 I have heard people say seeds won't get from A to B. 25 Well, those barberry didn't get there by themselves.	67 1 maximize the possibility of those conditions. I can't 2 guarantee anything at all. No one can because we're 3 dealing with nature. 4 MR. CARDOZA: What are some of those ideal 5 conditions? 6 THE WITNESS: That we start getting normal 7 weather, and I don't know what that is any more quite 8 honestly to tell you the truth. But if we start getting 9 normal rain falls and some normal temperature swings, 10 the fact that we have wildlife moving through the area 11 will help, because it helps reseed. We have fox, we 12 know there are fox in the area. I know there are coyote 13 in West Orange. We have multiple species of birds and 14 small game. All of those animals act as disbursal 15 agents for the forest. With the deer fencing, what that 16 does is allow where they have disbursed those seedlings 17 have a better chance of growth. And what you will get 18 is what we call more normal forest succession, where the 19 forest ages, young things grow, old ones die. And as 20 they get replaced, so as a large trees, to give you an 21 illustration, if we have a storm and a large tree is 22 thrown down in that deer fenced area, it's not going to 23 be cut up. It will remain undisturbed. That tree that 24 comes down acts as a nursery for new tree seedling. As 25 the tree rots it creates a growth environment, that's
66 1 MR. WILKES: Right. 2 THE WITNESS: Seedlings can travel several 3 hundred yards in the wind, up to miles in some cases for 4 certain seeds. Wildlife moves, deer will move, they 5 will carry seeds. If you've ever walked through this 6 forest or any forest and gotten burs on your clothes, 7 that is a means of seed transmission. It's going to get 8 there. 9 MR. WILKES: Okay. 10 No other questions. 11 CHAIRMAN BAGOFF: Thank you. 12 Mr. Cardoza. 13 MR. CARDOZA: Thank you Mr. DeFeo for your 14 presentation and your testimony during questioning thus 15 far. 16 You had a reference in Page 4, you have a 17 reference in P-4 as far as three years of tree growth 18 and in a later slide at the end of the deck you 19 referenced that native species contending with invasive 20 species when provided the right specific beneficial 21 conditions can contend with those invasive species. So 22 the, ultimately saying that the deer fencing would, 23 under the best conditions, create or would everything 24 going correctly, would create those conditions? 25 THE WITNESS: The deer fencing's intended to	68 1 wonderful for new trees. So that is what you'll start 2 to see to occur. Now if I see that and I get new growth 3 it's gone, because the deer come and eat it, which I 4 can't blame the deer, but that's what they do. 5 MR. CARDOZA: Okay. I appreciate that. 6 So you can't say for certain, you know, you 7 just can't positively say yes, you know, 100 percent, 8 you know, it's great the deer fencing alone, but I 9 believe during Council President Rutherfords questioning 10 you referenced three to five year time span. I'm sorry, 11 what was that in reference to? 12 THE WITNESS: This shows you, you can see 13 here, this is deer fencing. Okay. Where I'm standing 14 is on the wrong side of the fencing where there is no 15 deer fencing. Within three years this area was 16 completely denuded by deer. But it's very similar to 17 the forest that we're talking about. It looked 18 basically the same. In three years this is the growth, 19 after the deer fencing is in place, starting to come up. 20 In fact this is even worse than the spot I was at in our 21 forest because it was farm field and there was some 22 other things as well, but there was no growth here. 23 This is how quickly land regenerates itself when it's 24 given that opportunity. That's what I was referencing 25 in three years.

69 1 MR. CARDOZA: Okay. That's appreciated. 2 I believe you also had a slide referencing 3 the percentage of seedlings that you expect to fall into 4 the fenced area. After, I don't know how, was that a 5 projection after a certain amount of time? 6 THE WITNESS: I'm not certain I had a number 7 of seedlings. 8 MR. CARDOZA: It was towards the end of the 9 deck. 10 THE WITNESS: Okay. Let me move to that. 11 Again, my apologies for not numbering these. Let's see. 12 Probably this slide you're talking here? 13 MR. CARDOZA: I believe so. 14 THE WITNESS: Yeah, as part of the landscape 15 plan that is currently proposed, and mind you, this is 16 somewhat fluid in terms of some numbers, these numbers 17 may increase, the speciation, the specific species are 18 not ironed out in stone yet. But they are looking at 19 using, as is pretty common in developments, you see 20 flowers put in the ground. You see shrubs put in the 21 ground or perennials. Most places use Bermuda grass. 22 Your typical lawn, one of the greatest weed infestations 23 we've ever created in my opinion. They aren't going to 24 be using a lot of them. They are going to be using 25 native plants, native ground cover. That's what I said.	71 1 THE WITNESS: The posts? 2 MR. CARDOZA: Yeah. 3 THE WITNESS: I would have to look at the 4 spec sheet that is attached. I just don't have it in my 5 head. 6 MR. CARDOZA: And the fencing itself? 7 THE WITNESS: The fencing itself doesn't go 8 underground, it goes to the ground. 9 MR. CARDOZA: All right. Perfect. 10 So as mentioned it wouldn't interfere with 11 animals that didn't burrow? 12 THE WITNESS: No, burrowing animals, I mean, 13 chipmunks are going to walk through it. Fox, 14 woodchucks, they're going to burrow under it. It's not 15 designed to stop them. Deer don't burrow that way. 16 They will push but this fencing is stiff galvanized with 17 cross members and they're not going to get under that. 18 That's why it's used. Other animals they're not -- 19 small animals are going to have no problem transferring 20 through this area. 21 MR. CARDOZA: And then in reference to deer, 22 or I should say in reference, I believe you mentioned 23 one alternative to deer fencing, which would be deer 24 hunts, which is obviously more invasive, any other 25 alternative that the board or general public should be
70 1 They're proposing 2166, I don't know the exact number 2 we'll end up with, but it will be at least that. And as 3 they grow and spread they will create -- go to seed. 4 And as they go to seed they will spread throughout the 5 area. That's the goal. That they become nursery stock, 6 if you will. You're not digging them up to move them, 7 don't get me wrong, but they're going to become nursery 8 stock by seed. One of the advantage of native plants 9 over nonnative plants is that native plants will seed 10 themselves. Many nonnative plants don't seed, because 11 they're hybridized and can be sterile. These will seed 12 and spread, which is what we want. 13 MR. CARDOZA: Okay. 14 So with these native plant additions, 15 repeating that a little bit of Mr. Wilkes questioning, 16 is there a way to project how much we can expect 17 seedlings falling in an undisturbed area versus the 18 fenced area or, you know, outside of the developed area. 19 There's no way to, you know -- 20 THE WITNESS: It will depend on the 21 direction of the wind, the strength of the wind and 22 where the animals choose to go. 23 MR. CARDOZA: Okay. 24 The proposed deer fencing, how far will it 25 extend into the ground?	72 1 aware of and how did you come to the determination that 2 this is the best option? 3 THE WITNESS: It's not the best option. The 4 best option to control deer purely on a control basis, 5 not a recommendation for this application, the best 6 option to control deer is a combination of hunting, 7 which reduces population, deer fencing, if you want to 8 regenerate the forest and potential deer relocation, 9 which is extraordinarily expensive, very stressful on 10 the animal and not all that successful in my experience 11 of reading. However, this is the best option that I 12 could come up with, professionally speaking, for this 13 site with all the limitations that go with it. Housing 14 density nearby, neighbors, trying to anticipate the, 15 shall we say, disaffection with the deer hunts in South 16 Mountain Reservation, I've never seen that be a very 17 popular option. When it's on large private property, 18 that's different. But this is the best option I could 19 come up with in the time of negotiation. 20 MR. CARDOZA: Thank you, Mr. DeFeo. I 21 appreciate it. That's all my questions. 22 CHAIRMAN BAGOFF: Ms. Kapferer. 23 MS. KAPFERER: Thank you, Mr. Chairman. 24 Mr. DeFeo, I have a couple questions about 25 the beginning of your presentation, the study you have

73 1 done. One, I think you show a couple of pictures on 2 tree parking. 3 THE WITNESS: Yeah, I will get there in a 4 second. That? 5 MS. KAPFERER: Yes. 6 If I understand you correctly you said that 7 these photos over time, because it shows that that's not 8 a popular thing. So what would, if we were to look at a 9 mature forest that it would be possible that -- 10 THE WITNESS: You would -- I'm sorry. What 11 I said is this, over, and this, by the way, I didn't put 12 every image that I looked at into this show. This slide 13 show. I have looked back at images back to 1985, that's 14 as far back as I can get a satellite image for this 15 site. So to give you context, one change is this was 16 wooded. Right. It's just woodland. What I would 17 expect to see in here is, and this is a winter image 18 admittedly, but what I would expect to see open areas, I 19 would expect to see areas that are being cleared because 20 of nature. Trees falling, dieing, etc., but with new 21 growth coming in, which I won't see in the winter image 22 of course, but as I start to look again at this other 23 winter image, what I'm seeing is literally no change. 24 This is not meant to be definitive, this is just 25 illustrative of the forest being very consistent over	75 1 absolute. This is a statistical survey. I'm sure you 2 understand. But this means in these circled areas we 3 did not find any of those trees. On my second, when I 4 did a walk-through in 2024, as noted earlier, we did see 5 some saplings under four inches, but I would say to you, 6 all-though we did not do a statistical measurement, they 7 weren't statistically significant, and the basis of that 8 is purely anecdotal and by response. Oh my goodness, 9 there's sampling. And when you're that surprised at 10 seeing one, that's not good. 11 MS. KAPFERER: So what you're saying though 12 is that on that chart there wouldn't -- that how, the 13 number, how would you have a number there? I mean, 14 right now it looks like zero. 15 THE WITNESS: In those study plots they saw 16 them, they would count them and put them there. Because 17 they know they're under four inches. I mean, that's 18 observationally we can tell you that. And when the 19 arborist who is used to go out into that section, there 20 were three of them actually. You know, easily through 21 years of experience, okay, there's three inch saplings. 22 We note down there were five of those. But that, again, 23 on this 16 feet or ten feet outside these little plots, 24 I'm not saying there can't be one, but that's not what 25 you're studying because it messes up your statistics.
74 1 time. Since 2002 to today these trees simply gotten 2 bigger, which is a good thing, you know. I don't have a 3 problem with that. I do have a problem with the fact 4 that on the ground looking at this forest I don't see 5 any change, even over five years with any understory 6 growth. I see some growth, which I saw last time. Does 7 that answer your question? 8 MS. KAPFERER: Yeah. Then moving a bit 9 further into your presentation I think you had a chart 10 that was a histogram. 11 THE WITNESS: Oh, yes. This one. 12 MS. KAPFERER: So when someone went out to 13 measure the trees, you know, were there measurements 14 done on trees that are less than four inches? 15 THE WITNESS: You don't do measurements in a 16 tree survey on anything under four inches. You observe 17 they're there, but you don't take physical measurements 18 of them. 19 MS. KAPFERER: Right. So how would that 20 show up then? Like, how would that be characterized 21 then on this chart. 22 THE WITNESS: You would see it by 23 observation. You would just count them. They just 24 didn't appear in the -- let me go back and be clear on 25 this. These types of studies and histograms are not	76 1 MR. AFRAN: I'm sorry, could you repeat 2 that, I couldn't hear you. 3 THE WITNESS: What I'm saying is, when you're 4 doing this kind of a study, understand it's a 5 statistical survey, it's not an absolute. No one is 6 going in there and counting every single tree in that 7 area. That's just not feasible. But when I say there 8 are no saplings in the study area, I'm sorry, I'm not 9 hitting the circle very well, I was never very good at 10 those games. I could be here, which is outside of the 11 study area and I could see a sapling potentially, but I 12 wouldn't count it in my statistical study because it's 13 not in the study plots. In 2024 as noted we did see 14 some saplings but weren't doing a repeat of the 15 statistical survey of the forest. We weren't recreating 16 that survey, it was unnecessary in our opinion. 17 MS. KAPFERER: Thank you. 18 I think I was confused when I saw that sign 19 and I was pretty sure that would have to be more than 20 zero. I'm just confused as to where the number was and 21 how someone divided that number. 22 So is the deer fence, is it practiced by 23 other experts? I know you mentioned that the Department 24 of Agriculture sounds like they have design guides or 25 something like that. So are there other entities that

77 1 use the deer fence? I know you said Duke Farms and 2 Essex County, are there others that promote, like does 3 DEP have a stance on the deer fence? 4 THE WITNESS: To my knowledge I don't, I 5 haven't seen anything published by the DEP, but there 6 have been and I have read over the years multiple 7 studies, Cornell University, Penn State, University of 8 Syracuse. Many have done studies. US -- sorry. 9 Department of Agricultural -- US Department of 10 Agriculture Forestry has done studies on deer fencing. 11 What I have read, I would say to summarize it 12 succinctly, is it works but they're expensive. Probably 13 the single most expensive means of trying to preserve a 14 forest and not feasible as most would say when you're 15 trying to preserve a national forest or something to 16 that size. It's just not feasible. Duke Farms happens, 17 apparently, to have a significant resource base of money 18 to be able to create that much fencing. Some of their 19 fencing however was also paid for by settlements with 20 polluters over the years. That's how they could afford 21 it. In this case you have an ordinance based on the 22 settlement, was I close, that does call for the 23 applicant to pay for the deer fencing. 24 MS. KAPFERER: Thank you. 25 And then question about, I'm not sure if	79 1 have to do, because it would be determined at that time, 2 but essentially you do a sweep. You start at the 3 farthest points from the gates and you make, it's going 4 to sound rather archaic but similar to driving game when 5 hunters do that. They drive game by having people move 6 game in a specific direction. If we go to the, let me 7 go back and show you probably the easiest. So I'm not 8 going to even go to the next slide since I have such bad 9 luck with it. Presuming that, let's presume for 10 argument sake right now, because the final design isn't 11 done, that the gate is here. Just for argument sake. 12 So what you would start to do is create, whether it's 13 with people or some other means, probably people because 14 you can't get a machine in here. You create a line and 15 you begin walking in this direction and you begin a 16 sweep, so you create an arc and the deer are not going 17 to come towards you, they're going to move away and you 18 continue that until you arc, and they only have one 19 point to go and that's out the gate. They can't get 20 over it, so they're going to go through the gate. It's 21 not a very sophisticated thing but it can be very 22 effective. 23 MS. KAPFERER: That's my questions. Thank 24 you. 25 CHAIRMAN BAGOFF: Guess who's up, the
78 1 this questions for you or for us. Does somebody review 2 the design for the fence? If it's something that, you 3 know, maybe is unfamiliar, how do we determine -- 4 CHAIRMAN BAGOFF: I think he testified to 5 the design of the fence. 6 MS. KAPFERER: Okay. 7 THE WITNESS: Yes, I did testify to the 8 design of the fence, it was actually part of my report. 9 The US Department of -- New Jersey Department of 10 Agriculture design standard. 11 MS. KAPFERER: Okay. 12 And then one question, I believe you said 13 something about that the deer are herded out when the 14 fence is actually closed. How does that work? Maybe 15 this is a silly question, but thinking it's, you know, 16 so many, it's a very large area, how do you make sure 17 all the deer are out and any other wildlife for that 18 matter? 19 THE WITNESS: Yeah, I'm not worried about any 20 animal other than deer not getting out of there on their 21 own. I'm not going to worry if they get out on the day 22 that the fence is closed. They will get out. 23 The deer, not much different than herding 24 out any other animal. You're going to have to, I don't 25 have the exact methodology in front me what you would	80 1 engineer. Do you have any questions about his 2 testimony? 3 MR. HESS: One quick question, if I may. 4 CHAIRMAN BAGOFF: Sure. 5 MR. HESS: The, you have indicated also 6 invasive species within the understory area that's going 7 to be fenced with the deer fencing? 8 THE WITNESS: Correct. 9 MR. HESS: Are there any plans, since that 10 will be fenced in, are there any plans to do anything to 11 remove the invasive species in that area? 12 THE WITNESS: That's not something that we 13 discussed to any great length. There are no plans that 14 I know of to do that. 15 MR. HESS: Okay. 16 Just wait naturally then and hope that the 17 new growth causes the invasive species to back off or 18 succumb? 19 THE WITNESS: Over time that's what we would 20 anticipate. But I also don't know that, the applicant 21 may not want to put a trail, a walking trail and do 22 something, it's up to the applicant. They may choose 23 over time to say, let's do something. Create a garden 24 club. I'm not saying they will, but perhaps the 25 community in there wants one. Any number of things can

81 1 be done in those areas. They're not wetlands so they 2 can be disturbed. And let me be clear, when I say 3 disturbed, I mean take out the invasives. 4 MR. HESS: No, I understand. 5 CHAIRMAN BAGOFF: Thank you, Mr. Hess. 6 Mr. Haizel, you have a question for Mr. 7 DeFeo on his testimony? 8 MR. HAIZEL: Yeah, quick question. 9 I thought it was actually very fascinating 10 as well because I'm not familiar with any type of 11 development done in this manner. So I did some 12 research, but question. Looking at the slides that you 13 have at the start of the session, the slide show showing 14 no variation in the vegetation, is that normal for a 15 terrain that is, you know, you have a wetland area, you 16 have a fairly inclined area, is that normal that it 17 would be that consistent across? 18 THE WITNESS: You're talking about the line 19 of sight being so clear? 20 MR. HAIZEL: Not just the line of sight, but 21 just looking at the canopy and things of that sort. I 22 would suspect there's going to be, in the wetland area 23 for instance, there may be greater density there, even 24 by the standards of little density that it would be 25 relatively greater density in the wetland area maybe	83 1 where we saw open areas where trees have come down, 2 going back to Ms. Kapferer's question, where I had open 3 areas was mostly Japanese stiltgrass. Now, that will 4 die, it's an annual, but it will come back by seed. 5 But, again, deer don't eat it. I keep trying to train 6 the ones in my yard to eat it, but they don't listen. 7 MR. HAIZEL: And just out of curiosity, this 8 may be beyond your scope, but this process by which this 9 is done in terms of cording off an area and fencing it 10 and as far as you know is this considered humane in 11 terms of the -- 12 THE WITNESS: It's -- yes, in my opinion it 13 is because we're not killing the deer. We're not 14 harming the deer. We're simply driving them out of a 15 given site. Now, I -- question of hunting and not 16 hunting is a whole separate question. But as I've said 17 in other areas, for example Duke Farms is the largest 18 area deer control that I've seen lately, they hunt it. 19 And I don't mean that they brought in sport hunters, 20 these were, similar to what you have in South Mountain 21 and other deer control areas, these are marksmen. 22 They're not there hunting for sport, they're baiting and 23 killing deer quickly. You can say that's inhumane, I'm 24 not going to make that argument one way or the other. 25 That's the single most effective way to reduce deer
82 1 more or less of a -- 2 THE WITNESS: It's a very good question. The 3 answer is, no, I would have expected a higher density in 4 the wetlands but unfortunately the higher density in the 5 wetlands would be observed with barberry. It's an 6 extraordinarily aggressive plant. Obviously very 7 successful but not in the means that I would like to 8 see. But we did see higher density but nothing of the 9 native variety that we wanted. 10 MR. HAIZEL: So I think one of the 11 commissioners did ask before, is there anything else 12 impacting the commission of the forest? Would it be 13 then that the deer are a major contributor but that this 14 invasive vegetation is also having a significant impact? 15 THE WITNESS: Yes. The invasive plants 16 normally have an impact. But number one, since there 17 isn't a high density of native plants because the deer 18 are eating those, the invasive plants are left, the deer 19 don't go there. You won't find deer resting and 20 sleeping in barberry, it's not very comfortable and so 21 they leave it alone. The barberry simply reproduces. 22 The birds will eat those seeds and spread them further 23 and barberry will also spread itself by seed drop and it 24 just, since nothing eats it, it continues on its 25 spreading. The same is true of Japanese stiltgrass,	84 1 population. Again, basic math. Is the deer fencing 2 humane, we're not hurting the deer. We're not doing 3 anything. They're going to be scared that one day when 4 they're driven out, but deer aren't really, I mean, I've 5 walked through there a few times, the deer were looking 6 at me, they weren't really afraid of me. They just kind 7 of looked at me and I looked at them. 8 MR. HAIZEL: Thank you. 9 No more questions. 10 CHAIRMAN BAGOFF: Mr. Plocker. 11 MR. PLOCKER: Very briefly. 12 Thank you, Mr. DeFeo, I just wanted to 13 confirm for the record that the IH-1 zoning ordinance 14 which applies to this application, there is a section 15 called, Tree Removal and Replacement. Are you familiar 16 with that? 17 THE WITNESS: I didn't read the ordinance 18 lately. 19 MR. PLOCKER: Lately. But is it fair to say 20 that the calculations that you discussed and the 212 21 trees per acre are contained in the ordinance? 22 THE WITNESS: Yes, because that's part of 23 the way -- was part of what I negotiated for settlement. 24 MR. PLOCKER: Okay. 25 And does the application, based upon your

85 1 review, comply with the Tree Removal and Replacement 2 section of the IH-1 zoning ordinance? 3 THE WITNESS: In my opinion, based on what I 4 have read, it does. 5 MR. PLOCKER: Okay. 6 And just one more clarification, and this is 7 really a representation for the applicant. Did you 8 represent, and I will reference the settlement 9 agreement, you referenced a certain exhibit I thought 10 you said you've shared with other professionals or 11 towns, is that correct? 12 THE WITNESS: Yes. 13 MR. PLOCKER: I just want to confirm, is 14 that Exhibit C to the Settlement Agreement entitled, 15 Design Terms and Conditions? 16 THE WITNESS: Just may I see it for a second. 17 MR. PLOCKER: It's part of the -- 18 MS. MCGOVERN: Do you have your copy, 19 because I have my copy. 20 MR. PLOCKER: I have a copy here, and for 21 the record, it's part of the application materials that 22 is part of the website and agenda. 23 THE WITNESS: Counsel, do you want me to 24 look at this one? 25 MS. MCGOVERN: If it's the Exhibit WO-2,	87 1 certainly are bound by the Settlement Agreement and we 2 do agree as a condition of approval to all the items 3 listed in Exhibit C. 4 MS. MCGOVERN: What's not in that exhibit 5 are the specifications from the, what was it, the New 6 Jersey -- 7 THE WITNESS: New Jersey Department of 8 Agriculture. 9 MS. MCGOVERN: Will you agree to the 10 condition that the fence will meet those specifications? 11 MR. PLOCKER: Absolutely. 12 MS. MCGOVERN: Okay. 13 CHAIRMAN BAGOFF: And Mr. DeFeo will provide 14 us with those specifications, please. 15 THE WITNESS: I believe I have already, but 16 I will be happy to resubmit them if you haven't gotten 17 them. 18 CHAIRMAN BAGOFF: Make sure we have them. 19 MS. MCGOVERN: I want to make sure. There's 20 a reference in the ordinance and Settlement Agreement or 21 settlement in the design specifications to the fence but 22 not the specifications themselves, so now we have that 23 on the record. 24 CHAIRMAN BAGOFF: Mr. Afran, do you have any 25 questions, sir?
86 1 which is part of the -- 2 MR. PLOCKER: Yes. I don't have it 3 numbered. 4 MS. MCGOVERN: Okay. Well, yes, go ahead 5 and look at it. 6 CHAIRMAN BAGOFF: Why don't you read what it 7 says on top of the page. 8 THE WITNESS: It says, Exhibit C, Design 9 Terms and Condition WEHI Challenge Permit. 10 CHAIRMAN BAGOFF: Perfect. Go for it. 11 THE WITNESS: Yes, Exhibit C represents the 12 environmental conditions of the tree replacement 13 conditions of this. 14 MR. PLOCKER: Okay. 15 And just for the record, there are many 16 terms and conditions in Exhibit C, other than dealing 17 with the tree removal and replacement, and I just want 18 to state on behalf of the applicant that my client is 19 bound and will agree to every one of the terms and 20 conditions in here as a condition of approval, aside 21 from trees, you know, there are things about 22 environmental friendly appliances that must be used in 23 development, amongst other things. Recycling. And I 24 just wanted to, you know, say for the record that, 25 all-though the board is bound by the ordinance, we	88 1 MR. AFRAN: Well, I'm actually going to have 2 about two hours of questions and that's going to prevent 3 the public from going this evening. What we did earlier 4 was very easily was to have the public go first, this 5 way that dwindles down some of the subject areas. 6 CHAIRMAN BAGOFF: That's fine. You're 7 happy, I'm happy. 8 MR. AFRAN: Probably means going over to the 9 next night. 10 CHAIRMAN BAGOFF: We'll start and see where 11 we get to. 12 Ladies and gentleman, at this time I'm going 13 to ask you to come up, one at a time, get identified, 14 and you may ask a question of Mr. DeFeo about his 15 testimony. So questions start with where, which, how, 16 when, why and what. Please do not testify or bring up 17 information that you would like to say, you will be 18 given an opportunity to do that at a later point in the 19 application process. So we're going to keep this very, 20 very simple. If I ask you to, if I raise my hand to ask 21 you to stop, we'll stop, we'll talk, I may ask our 22 attorney to opine, and we'll go forward. So one at a 23 time. 24 Ma'am, please come up to the microphone. 25 State your name for the record.

89 1 THE PUBLIC: Hello. My name is Barbara 2 White. I live in West Orange. If you put up SP-11, I 3 believe it is, I can show you approximately where I 4 live. That's the one that shows -- 5 CHAIRMAN BAGOFF: I'm going to tell you 6 what, we're going to take a ten-minute bio break. 7 (Whereupon, a short recess is taken.) 8 CHAIRMAN BAGOFF: Good evening, ladies and 9 gentleman, council chamber members and on zoom. Welcome 10 back. 11 Ma'am, you have the floor. 12 Ladies and gentleman, I ask you to be quiet. 13 THE PUBLIC: Can you hear me? 14 CHAIRMAN BAGOFF: Yes we, can. 15 We want quiet. Thank you. 16 THE PUBLIC: Thank you. 17 My name is Barbara White. I do live in West 18 Orange and I asked you to put up, I think it was SP-11, 19 to give you an idea what I'm talking about. It's the 20 map. That's the one. 21 So I happen to live, you see the undeveloped 22 properties at the top of the map, across the street of 23 that. I have a question. The question was raised 24 whether or not there were any other things to be 25 considered when looking at the health of the forest and	91 1 there is a fire, a forest fire in this area, does the 2 deer fencing impede the fire department from putting out 3 the fire? 4 THE PUBLIC: Absolutely. 5 THE WITNESS: Am I understanding that 6 correctly? 7 THE PUBLIC: That's the question. 8 THE WITNESS: I'm not a firefighter, nor a 9 forest firefighter, so I can't speak with any expertise 10 on that. There would be gates there. I could only say 11 by observation if there was a fire today the fire 12 department can't get in there anyway. It's all wooded, 13 there's no trail in there now. So I really can't answer 14 your question because I'm not a firefighter. Did I 15 consider fire, is I guess the second part of your 16 question, when laying out deer fencing. I did not. 17 THE PUBLIC: Okay. 18 And then the first part of my question was, 19 did you consider, given the impact of those two main 20 storms on trees in general and particularly trees in our 21 neighborhood? 22 THE WITNESS: I'm -- the short answer is, 23 no, because I can't do a projection of major storms. 24 THE PUBLIC: Excuse me, I'm asking about the 25 storms that happened, Irene and Sandy. There are counts
90 1 you cited a few things, one thing that was not cited was 2 the damage that was done during Hurricane Irene and 3 Hurricane Sandy. There are records that speak to the 4 incredible loss of trees in New Jersey, certainly in my 5 neighborhood. Before I couldn't see my neighbors house 6 and after those storms I can see all of my neighbors 7 houses. There were also trees that came down, you have 8 no impacts during that time that I can point out to you 9 and I believe one scrub trees hitting the forest itself. 10 So that hasn't been taken into consideration. 11 And then the second thing is actually 12 related to something that happened this weekend. My 13 question really is around, given what we're looking at 14 in front of us, in the event of something like what's 15 happening in Livingston, 192 acres were burned and 16 multiple fire departments had to respond. Will the deer 17 fence itself make it harder in the event that there is 18 something like what happening in Livingston, to manage 19 it? On Patch it was, part of the concern was a few 20 roads there and they were not able to make turns both 21 manpower and the apparatus. So, again, for future 22 safety of the deer is that something we can look at? 23 Thank you. 24 THE WITNESS: To make sure I understand your 25 question, you're asking me a question related to if	92 1 for the number of trees that were taken down or impacted 2 by those storms in New Jersey and the informations 3 publically available. My question is whether or not it 4 was taken into consideration when you were looking at 5 the change in the forest over time from a major storm 6 that took place in 2011 followed by the one that took 7 place in 2012 and one of those, I think it's the first 8 one, actually had a tornado effect that went through 9 multiple places and we lost a large amount of woods. I 10 was there at the time. That's my question. Were those 11 taken into consideration? 12 THE WITNESS: No. 13 THE PUBLIC: Thank you. 14 That's it. 15 CHAIRMAN BAGOFF: Thank you. 16 THE PUBLIC: Good evening. 17 CHAIRMAN BAGOFF: State your name for the 18 record, please. 19 THE PUBLIC: Is this thing on? 20 CHAIRMAN BAGOFF: Yes, you have to move a 21 little closer. 22 THE PUBLIC: I'm good. 23 Jessica Pearson, Verona. 24 Hi. Good evening. 25 CHAIRMAN BAGOFF: Good evening.

93 1 THE PUBLIC: And good evening, Mr. DeFeo. 2 THE WITNESS: Good evening. 3 THE PUBLIC: So, just looking around here on 4 my notes. All right. 5 So we understand that you are, you gave us a 6 bunch of your certifications earlier in your testimony, 7 but you are not a forester, is that correct? 8 THE WITNESS: Correct. 9 THE PUBLIC: You are not an arborist, is that 10 correct? 11 THE WITNESS: Correct. 12 THE PUBLIC: You're not a licensed tree 13 expert? 14 THE WITNESS: That is correct. 15 THE PUBLIC: Are you an LTCO? 16 THE WITNESS: No. 17 THE PUBLIC: You are not. 18 Then you -- you actually testified a few 19 moments ago that you were on the site when Madam 20 Kapferer was asking questions with three arborist's who 21 apparently conducted part of your study or part of the 22 study of the trees, so are you testifying on their 23 behalf this evening, on their findings? 24 THE WITNESS: No, I'm testifying on my 25 report.	95 1 She worked for me. Her firm sent me three foresters, 2 which was my request. 3 THE PUBLIC: You said arborist's. 4 THE WITNESS: Foresters and arborist's -- 5 THE PUBLIC: You said arborist's. 6 THE WITNESS: They have both certifications. 7 THE PUBLIC: But they're two different 8 things. 9 THE WITNESS: They are different things. 10 There are arborist's who understand the difference since 11 there seems to be some confusion. 12 THE PUBLIC: Can we talk about that. Why 13 don't you elucidate for everybody here what a forester 14 does versus what an arborist does? 15 THE WITNESS: Sure. 16 THE PUBLIC: So that I don't have to have my 17 eyes rolled at me by one of your board members. By one 18 of the board members. So could you please do that. 19 THE WITNESS: I'd be happy to do that. An 20 arborist is a person who has been certified by the state 21 of New Jersey to take care of trees. An arborist, for 22 lack of a better term, is a tree doctor. They also are 23 used and trained to help identify health of trees and 24 they are often hired by municipalities, in fact I have 25 an arborist on my own personal retainer for my own
94 1 THE PUBLIC: That's a finding on your report 2 from their research? 3 THE WITNESS: They were hired by me under my 4 supervision to do the research in accordance with proper 5 statistical methods. I interpreted that report, read 6 the report, analyzed the report. 7 THE PUBLIC: So you read the report and you 8 analyzed their work and then you interpreted it? 9 THE WITNESS: It's work. They work for me. 10 THE PUBLIC: And you turned that into your 11 own report for the township? 12 THE WITNESS: Correct. 13 THE PUBLIC: So you just agreed with my 14 assertion, in a sense. 15 THE WITNESS: No, I did not. 16 THE PUBLIC: Okay. 17 How did it go? Please tell us. 18 THE WITNESS: I've been retained in -- I was 19 retained in 20 whatever. 2019, 2018, I can't remember. 20 Whatever it is, in 2019 I began negotiations, in order 21 to do proper negotiations on Schedule C, which 22 ultimately resulted, I hired a forester to come in -- 23 THE PUBLIC: Who was the forester? 24 THE WITNESS: Amy S. Greene Environmental 25 Services, I believe was the formal name of her company.	96 1 property to come inspect my trees and make sure that 2 they do not have disease. They often send someone who 3 they have trained, who could be a tree expert, which is 4 someone who might know about the trees, a certified tree 5 expert, it is a state certification. And they would go 6 in and take care of the trees. My trees, for example, 7 are infected by various fungi, they come and they will 8 do an integrated pest management program. 9 THE PUBLIC: So -- 10 THE WITNESS: Let me answer you question. 11 So an arborist looks at trees. A forester 12 is someone who is trained typically, especially in a 13 forestry school, to manage forests. Many foresters work 14 for the US Department of Agriculture in our national 15 forests. Many foresters work for towns. Many foresters 16 work for private tree companies. Foresters look at 17 forest management. Typical forest management training, 18 forester training to be exact, is designed around 19 maximizing output of forests for harvest with maximum 20 health for the forest. Old style forester training 21 would create monoculture of forest because trees grow 22 faster, they go in, they cut accordingly, clear cut, 23 selective cut, etc. So a forester is looking to see that 24 a forest can have maximum throughput or maximum output 25 and can in fact create a healthy forest. In other

97 1 words, a forester has a bigger role than an arborist. A 2 arborist is more concerned to individual trees. This 3 does not mean they don't know anything about forests. 4 It just means they're trained more to look at specific 5 trees. So the fundamental difference between arborist 6 and a forester is the scope. That would be the easiest 7 way I could explain it. 8 THE PUBLIC: I would agree with your 9 assessment of who does what and what jobs they are 10 basically charged with. So thank you for that. 11 So you said in your testimony earlier that 12 you had three arborist's on the site? 13 THE WITNESS: And foresters. They have 14 multiple certifications. They are experts in 15 environmental assessment of trees. 16 THE PUBLIC: And so you talked kind of, you 17 kind of gave us a rough overview of what, how you 18 tackled this. Apparently you went in August of this 19 year to do a quick reassessment, if you will, of this 20 forest and health of the forest. So exactly what did 21 that entail? 22 THE WITNESS: This year we were asked by the 23 board and by residents in town who raised the question 24 specifically, have we looked at the forest since the 25 initial study that was done in 2019. I have been there	99 1 assessment and we stated -- 2 THE PUBLIC: You walked all 120 acres? 3 THE WITNESS: Yes. 4 THE PUBLIC: The entire -- 5 THE WITNESS: 120 acres is not that big a 6 property to walk in a day. 7 THE PUBLIC: Okay. 8 THE WITNESS: We walked the 120 acres. Did 9 we look at every square inch, no. We walked the 10 perimeter, we walked the property across. We looked, I 11 said it hadn't changed in four years, no. 12 THE PUBLIC: Is that why you didn't take -- 13 THE WITNESS: Five years. 14 THE PUBLIC: Is that why you didn't take any 15 pictures? 16 THE WITNESS: You see some of the pictures 17 there that I've taken. 18 THE PUBLIC: I saw pictures of a different 19 site and I saw one picture. 20 THE WITNESS: The forest hasn't changed. I 21 could take a picture there tomorrow and it would look 22 just like my pictures at any time. 23 THE PUBLIC: You took no pictures of the 100 24 yard visibility? 25 THE WITNESS: You just saw that picture.
98 1 since, but I did bring my foresters back out, this is no 2 longer Amy S. Greene, it is now called Davey 3 Environmental, Amy has retired and Amy sold her company 4 to Davey Environmental. They sent out one of their 5 folks and me, we went through, he's an arborist, 6 certified tree expert I believe and he's also a 7 forester, and we walked the property, and we walked it 8 for two reasons. One, I would walk it because I have to 9 see it and I oversee this. 10 Two, I'm a trained environmental scientist, 11 so I look at a forest completely differently from a 12 forester. I look at it in a more holistic standpoint 13 and we walked together through there. Now, the 14 forester, et al., would certainly be faster at things 15 like tree identification than I would be at this point, 16 all though I can still do it, he was faster. If you do 17 it every day you're faster at it and I went through to 18 look at the health of this forest from my environmental 19 background standpoint. In other words, I see the forest 20 through the trees. A forester sees the trees. I look 21 at every element, from listening to the birds, from 22 looking at the plants, from looking at the ground, to 23 looking at the geology. That's the difference in an 24 environmental scientist looking at a forest or 25 ecologist, which I'm also trained in. We did our	100 1 Here, I'll show you. Hang on. 2 THE PUBLIC: Okay. I would like to see 3 this. 4 THE WITNESS: There. 5 THE PUBLIC: Which one, sir? 6 THE WITNESS: That's the actual site. I 7 could see the trees. 8 THE PUBLIC: Really. When was that taken? 9 THE WITNESS: This was taken in, this might 10 have been taken in 2024. I might have used a new one. 11 THE PUBLIC: Really. It looks longer. The 12 leaves aren't even down. 13 THE WITNESS: Would you let me answer your 14 question. 15 CHAIRMAN BAGOFF: Ma'am. Ma'am. Let him 16 finish his statement. You asked a question. Curtesy. 17 Let him finish his statement then you can ask him. 18 THE PUBLIC: He said 2024, sir, and I 19 rebuffed. 20 CHAIRMAN BAGOFF: Unless you have proof in 21 hand, he's the expert -- ma'am, there are rules here. 22 THE PUBLIC: I hear you. 23 CHAIRMAN BAGOFF: Let him finish. 24 THE PUBLIC: I heard you, sir. I understand 25 the first time.

101 1 CHAIRMAN BAGOFF: Okay. Good. 2 THE WITNESS: I will answer your question. 3 Looking back at this I knew I took pictures in 2024 but 4 this is not a 2024 image. But I can tell by the chair, 5 because I think the chairs been removed. The -- this is 6 a fall picture and if I went there today it would look 7 identical. The only difference is the trees all the way 8 up here would have green leaves on them, more in line 9 with this photo. This is not that site, all though I 10 wouldn't expect anyone to necessarily know the 11 difference in the two forests. 12 THE PUBLIC: So -- 13 THE WITNESS: The fact is it has not 14 changed. 15 THE PUBLIC: So there were no, of this 16 entire site walk, you chose not to capture any 17 photographs of the site? Zero. 18 THE WITNESS: I didn't find a need for it. 19 Nothing has changed. 20 THE PUBLIC: Did you name all the arborist's 21 that are working with you? 22 THE WITNESS: No. 23 THE PUBLIC: Could you. 24 THE WITNESS: Off the top of my head, no. 25 I'm not certain their names are even stated. I hired	103 1 the site will be planted with approximately 2166 native 2 perennial, perennial grasses, ground cover as well as 3 1065 native shrubs to function as heat generators. 4 Basically to provide new plant growth. Those plantings 5 are occurring where? 6 Can we pull that map up please, that shows 7 the deer fencing on either side of the proposed 8 development and the bright green area. 9 THE WITNESS: SP-11, is that what you're 10 talking about? Okay. Hold on. 11 THE PUBLIC: Yeah, the next one. That one. 12 Where on, using your pointer, can you show 13 me where you're talking about all of those species are 14 to be planted? 15 THE WITNESS: Specifically no, because this 16 is not a landscape plan. But it would be in the area 17 that is white on this plan, because that is the area of 18 disturbance. 19 THE PUBLIC: So, okay. So you're planting 20 the white area? 21 THE WITNESS: Correct. 22 THE PUBLIC: Not the neon green or the dark 23 green fenced areas? 24 THE WITNESS: Correct. Those are undisturbed 25 areas, correct.
102 1 Davey Environmental to walk with me and prior to that, 2 Amy S. Greene. They sent staff. 3 THE PUBLIC: So -- 4 THE WITNESS: At that time to be specific. 5 THE PUBLIC: So you don't, you didn't record 6 who was on the walk with you for that study? 7 THE WITNESS: At the time I said, hello. We 8 exchanged names. I don't remember their names. 9 THE PUBLIC: Was that this past August, 10 right? 11 THE WITNESS: It was -- there was one 12 forester with me this August. I didn't need three to do 13 a walk-through survey. 14 THE PUBLIC: Okay. And who was the one 15 arborist? 16 THE WITNESS: I don't have his name on me. 17 I have him somewhere. Josh I think his name might be, 18 but that's the best I remember. 19 THE PUBLIC: Did you say John? 20 THE WITNESS: Josh. 21 THE PUBLIC: Josh. 22 THE WITNESS: I think it's Josh, but don't 23 quote me. 24 THE PUBLIC: Okay, I won't quote you. 25 On Page 2 of your submission you state that	104 1 THE PUBLIC: Will there be any plantings put 2 in the "undisturbed" of that unfenced area? 3 THE WITNESS: No, that area is undisturbed 4 by definition. Additionally you would not be allowed to 5 put plantings into the wetland area, that would be 6 prohibited. We'd have to go in to disturb the wetland. 7 So, no, this is the -- the landscape, and I don't have 8 it up here, but a landscape plan will delineate 9 specifically where things will be planted and it would 10 be in the disturbed area. 11 THE PUBLIC: Okay. 12 So just answer me this, please. What is to 13 prevent the deer from consuming 2166 native perennials, 14 grasses, 1065 native shrubs that are unfenced and 15 available for consumption by all of the deer? 16 THE WITNESS: There are a number of things 17 that can be -- 18 THE PUBLIC: I mean, before I finish that 19 question. I just want to say, you stated on the record 20 multiple times that anything that starts to grow in an 21 area where deer are, gets eaten. So what's to prevent 22 them from eating all of this stuff? 23 THE WITNESS: Well, I have not looked at a 24 landscape plan or made a recommendation as to deer 25 protection that they could utilize within that site.

105 1 For individual trees, for example young trees that are 2 planted, there is another deer protection method which 3 are used on very young trees. And it's essentially a 4 plastic sleeve that protects the tree from deer. Now, 5 of course they will be planting -- they won't be 6 planting trees like this, but you could protect the 7 trunk. 8 As far as plants such as shrubs, flowers, 9 perennial grasses and so forth, they have not proposed 10 anything, nor have I asked for anything, because it's 11 not my purview of design. There are a number of 12 methodologies that can be used to help prevent deer 13 browse. One of which is a nontoxic spray that deer find 14 to be unpalatable. They are far from perfect, but they 15 have been used successfully throughout properties in New 16 Jersey. From my own study, which is my own property, I 17 have it sprayed monthly and my deer browse is 18 nondestructive. I still have deer browse, but it 19 doesn't tend to kill what I'm growing. So there are 20 those methods that could be done. I'm not saying 21 they're going to be done. That's not something that's 22 part of my report. 23 THE PUBLIC: So with that suggestion of 24 protecting the plantings, why wouldn't you propose to 25 plant some trees in a protected area? Why would you	107 1 would do, in essence, more damage planting those trees 2 in that area than I would gain as benefit. 3 THE PUBLIC: In which area, the fenced area? 4 THE WITNESS: The fenced area or even the 5 undisturbed area. By definition undisturbed means I 6 don't take heavy equipment into it. And to plant larger 7 trees I must do that. To plant shrubs, etc. I would 8 need heavier equipment to do so and I would, I would 9 disturb the area which is violative of the agreement. 10 Sorry. 11 THE PUBLIC: So you mentioned a couple of 12 things about the four-inch DPM trees. Generally 13 speaking, when we plant trees would you agree with the 14 statement generally it's two-and-a-half to three-inch 15 DPM trees that are planted say for street trees or a 16 backyard tree when a company comes in? And I'm not 17 talking deciduous trees, I'm talking shade trees, I'm 18 not talking about conifers. 19 THE WITNESS: Okay. 20 THE PUBLIC: So generally speaking, most 21 ordinances require no less than a two-and-a-half to 22 three-inch -- 23 CHAIRMAN BAGOFF: Ma'am. Ma'am, we're not 24 talking about ordinances. We are -- listen. 25 THE PUBLIC: I'm asking his opinion on what
106 1 completely leave reforestation out of the game plan for 2 the area that you're protecting with deer fencing when 3 you're making a case right now to plant things without 4 deer fencing that are completely available to the deer? 5 THE WITNESS: The fundamental difference in 6 what you're describing is, as the Chairman asked earlier 7 in testimony, are there programs where we could buy 8 seedlings for that fenced area, or get free seedlings 9 was the term of art used, and there are such programs 10 for that and the owner may choose to do that. But it 11 will take, if you noticed, within three years I'll have 12 growth in there. So I'd rather spend the money on the 13 deer fencing of a larger acreage then spend the money -- 14 THE PUBLIC: Well, have you -- I'm sorry, I 15 couldn't understand a word you used. Within three years 16 you'll have -- 17 THE WITNESS: Three years I will have 18 undergrowth in that area of deer fencing natively as you 19 saw from other sites that I've studied and there would 20 really be no need. Now, on the other side of that same 21 coin, I'm not going to suggest to the applicant that you 22 take 12-foot or 14-foot trees, first of all to get them 23 into the undisturbed area would be difficult because 24 it's not something you simply carry. Secondly, nor can 25 you excavate with a shovel easily to install them. I	108 1 -- 2 CHAIRMAN BAGOFF: Ma'am, you mentioned 3 ordinances -- 4 THE PUBLIC: You're completely interrupting 5 -- 6 CHAIRMAN BAGOFF: -- we're not talking about 7 -- 8 THE PUBLIC: I'm talking a question and it's 9 really upsetting to me that you're blocking the general 10 flow of Q and A here. It's very upsetting to me because 11 I'm asking him. He had a chart with four-inch trees and 12 he stated, he made statements about that. I'm asking 13 him, when trees are planted, generally, when people 14 plant trees what is the DPM of the tree? 15 CHAIRMAN BAGOFF: That's something different 16 than referring to the ordinance. 17 You can go ahead and answer that. 18 THE PUBLIC: I wasn't referring to your 19 ordinance. Okay. Thank you. 20 THE WITNESS: I cannot speak to other towns 21 ordinances, per se. 22 THE PUBLIC: Thank you. 23 THE WITNESS: Diameter is what you're talking 24 about. DPM, I don't know what that measurement is. A 25 diameter of a tree -- first of all that's --

109 1 THE PUBLIC: DBH, it's the same thing. 2 Diameter, breast, height. 3 THE WITNESS: Yeah, but you're -- anyway, I 4 won't get into a debate of tree terms. 5 The diameter of a tree that is planted 6 depends on what the landscaper chooses to plant. I have 7 not looked at yet, other than speciation, the landscape 8 plan for this site, all-though part of my charge would 9 be to take a look at the species that are planted and 10 help this planning board determine what's finally done 11 with the landscape plan. As far as what is generally 12 planted, that is totally dependent on what the applicant 13 wants to plant. It could be three-inch, two-inch 14 diameter trees. It could be four-inch. It could be 15 six-inch. I will tell you that in research I have done 16 there are some ordinances that require larger trees in 17 towns, such as six-inch in a building site. 18 Unfortunately as you plant larger trees you tend to have 19 higher mortality of those trees. So there's a downside 20 to that. You can plant it, but it makes it harder to 21 grow. Bigger trees are harder to transplant or harder 22 to plant in general. Having said that, I can't answer 23 your question as to what will actually be planted by 24 size on this site. 25 THE PUBLIC: I wasn't asking that.	111 1 histogram. It's giving you an approximation. 2 THE PUBLIC: This is, I'm sorry, this isn't 3 the totality of trees on the site? 4 THE WITNESS: No, it's in the study plots, as 5 I explained. This is a statistical -- 6 THE PUBLIC: I'm sorry, say that again. 7 THE WITNESS: It is in study plots, as I have 8 explained. This is a statistical study, not an 9 absolute. We don't go into a forest and count every 10 single tree on 120 acres. You statistically analyze the 11 forest using acceptable means of statistical analysis by 12 study plots. That's what was done here. This is all 13 that is. 14 THE PUBLIC: So how long does it take for a 15 sapling to become a four-inch tree? 16 THE WITNESS: Totally dependant on living 17 conditions. Species -- depends on species, depends on 18 weather. 19 THE PUBLIC: What about oaks, because 20 everyone know oaks? 21 THE WITNESS: I'm sorry, how much what? 22 THE PUBLIC: Oak trees. 23 THE WITNESS: It depends on growing 24 conditions, depends on weather, it depends on how much 25 water it receives. Is it growing in a rocky
110 1 You were talking about the forest. Can you 2 show the chart? 3 THE WITNESS: Yup. 4 THE PUBLIC: That shows the different sized 5 trees that you found on the site. 6 THE WITNESS: Okay. Bear with me. 7 THE PUBLIC: Maybe I should have led with 8 that and I wouldn't have gotten in trouble. 9 THE WITNESS: That's what you're looking at? 10 Is that what you're looking at. 11 THE PUBLIC: Yes. Okay. Go ahead, what's 12 your question, sorry. 13 THE PUBLIC: Okay. So what's the arrow 14 pointing to, please explain? 15 THE WITNESS: The arrow is pointing to the 16 fact that during the 2019 tree survey we, in the study 17 plots, found no trees or saplings I should say, since 18 it's not a tree below four-inches, no saplings smaller 19 than four-inches in diameter in the study plots. 20 THE PUBLIC: How many four-inch trees did 21 you find? 22 THE WITNESS: Approximately 55, 58 plus or 23 minus. 24 THE PUBLIC: 58? 25 THE WITNESS: It's not exact, it's a	112 1 environment, top soil rich environment, is it getting 2 plenty of moisture. I can look at a tree ring of a 100 3 year old tree and see it grow infinitesimally one year, 4 and this may be one of those years, or I can see a very 5 large spurt of growth. Hybridized trees I could see 6 half-inch a year in diameter for certain hybridized 7 species. I can see hybridized species grow three-inches 8 a year. But native trees, it depends. There's no 9 answer to that question. Nature doesn't work that way. 10 THE PUBLIC: I didn't mean to upset you, I'm 11 just asking questions because you seem to show a large 12 amount of trees that basically are not that big in this 13 small area that seems to be chosen randomly without 14 reason or rhyme. I'm not really sure why this small 15 swath -- 16 THE WITNESS: You view a statistical survey 17 randomly or else you institute bias and to avoid bias 18 you pick random plots. In this case the random plots 19 were focused on the area of disturbance that we were 20 given as projected areas of disturbance and the plots 21 were then randomized within that. You don't -- you 22 purposely do not do a nonrandom study if you expect 23 statically valid results of a tree survey. 24 THE PUBLIC: On Page 24, if you go to Page 25 24 or slide 24, whatever you want to call it.

113 1 THE WITNESS: Okay. 2 Can you tell me what it's about, please? I 3 apologize, they're not numbered. 4 THE WITNESS: It's beyond that. 5 THE PUBLIC: Wait. 6 THE WITNESS: Back? 7 THE PUBLIC: Hold on. 8 CHAIRMAN BAGOFF: Slide 24 is the tree 9 removal calculation. 10 THE WITNESS: This one? 11 THE PUBLIC: I might jump around a little 12 bit, I'm sorry. 13 THE WITNESS: Is that what you're looking 14 at? 15 THE PUBLIC: No. You said something about 16 you guaranteeing that 77 percent of the trees will be 17 preserved forever. 18 THE WITNESS: This is 77 percent of the 19 properties. 20 THE PUBLIC: No, no, it was a guarantee. 21 It's not on that, it's in the middle of the report. 22 THE WITNESS: Okay. Hang on. 23 THE PUBLIC: Yeah, this one. 24 THE WITNESS: This? 25 THE PUBLIC: Are you going on the record	115 1 THE WITNESS: But I will say to you that 2 this is talking about the fact that the forest will be 3 developed. Now, with the fencing, what I can say is 4 this forest has, as I answered to one of the board 5 members earlier, has a much greater statistical 6 probability of growing new trees and therefore becoming 7 a healthy forest again. In other words, we're giving it 8 the best chance that we can to become a healthy forest 9 by keeping out over browsing, which is recognized as one 10 of the great risks to our forest in the state of New 11 Jersey and the Mid-Atlantic region where we have 12 development by others than me, and therefore we will 13 preserve forever, perhaps a poor choice of words, but 14 that means is that they won't be cut down. 15 THE PUBLIC: Okay. 16 So when you say trees preserved, can you go 17 a couple slides back. 18 THE WITNESS: Back. Okay. 19 THE PUBLIC: Yeah, please. 20 THE WITNESS: Bear with me. That one? 21 THE PUBLIC: No. It's more with data on it. 22 It might have been forward, I'm sorry. 23 THE WITNESS: That's okay. I don't have 24 them numbered, that's my fault. 25 THE PUBLIC: Stop.
114 1 sir, on behalf of the applicant, to tell us that that 2 will be Green Acres property or something? 3 THE WITNESS: First of all, I do not speak 4 for the applicant, I speak for the planning board, so I 5 cannot speak for the applicant. What I am saying to you 6 is there is an ordinance and an agreement, I do not -- I 7 am not party to the ordinance. I had nothing to do with 8 the ordinance per se. I am saying to you that based on 9 my understanding those trees are not going to be Green 10 Acre property. This is going to be private property, to 11 the best of my understanding. It will remain private 12 property with restrictions on development as per 13 testimony I heard earlier but I can't speak to that with 14 authority, it's out of my purview. 15 THE PUBLIC: So, okay. It won't be Green 16 Acres unless the applicant comes forth and says that. 17 I'm not sure how you can say that trees will be here 18 forever because according to you the trees are all 19 dying. I don't understand, I mean you're saying that 20 the forest is in a unhealthy condition. So which is it, 21 I don't really understand this. 22 THE WITNESS: Okay. I am not God. I cannot 23 preserve trees for any length of time by my personal 24 will. If I could I would. 25 THE PUBLIC: Okay.	116 1 THE WITNESS: That one? 2 THE PUBLIC: Yeah. 3 THE WITNESS: Okay. 4 THE PUBLIC: So when you say tree loss, you 5 mean tree removal? 6 THE WITNESS: Yes. 7 THE PUBLIC: Number 2? 8 THE WITNESS: Yes. 9 THE PUBLIC: Not just loss, as in trees that 10 just keeled over and died. Tree loss as in, we are 11 actively removing them. Yes? 12 THE WITNESS: This is the potential maximum 13 tree removal, correct. 14 THE PUBLIC: Okay. 15 The 279 trees listed on Sheet 29 of Mr. 16 Anderson's plans. 17 THE WITNESS: I don't have that plan, but go 18 ahead. 19 THE PUBLIC: Well, you keep citing 279 trees 20 that are going to be planted in your report. 21 THE WITNESS: Yes. 22 THE PUBLIC: 279 under number 3. So my 23 question is, and you write, all native species, does 24 that refer and regard the list that is on sheet, what 25 did I just say, 29 of Mr. Anderson's engineering plans?

117 1 THE WITNESS: That comes from my review of 2 the landscape plan that I last observed and, yes, it's 3 Mr. Anderson's plan. I don't have that with me is what 4 I'm saying, in front of me. 5 THE PUBLIC: Will you supply these species 6 to the applicant as a suggestive measure, you know, 7 however you want to state it? 8 THE WITNESS: You mean as native species? 9 THE PUBLIC: Well, I'm not recalling if they 10 were all native species. That's not what I'm 11 questioning. 12 THE WITNESS: I don't understand your 13 question. 14 THE PUBLIC: My question is, was it your 15 suggestion as to the species -- 16 THE WITNESS: No. 17 THE PUBLIC: -- that appear on that list? 18 THE WITNESS: No, the applicant provided 19 those species for me to review. 20 THE PUBLIC: Okay. And the list at the end 21 of your report, the third page from last. 22 THE WITNESS: This? 23 THE PUBLIC: Keep going. At the end. That 24 is the end? 25 THE WITNESS: That end?	119 1 THE PUBLIC: So this is not -- this really 2 has nothing to do with what may or may not be included 3 in the applicants plantings list, this is just your 4 suggestion for plant, native plantings, is that correct? 5 THE WITNESS: This is a suggestion for a 6 point of discussion. If they wish to review and see 7 more native plants that they could pick from. It's not 8 meant to be an exhaustive list. 9 THE PUBLIC: Okay. I mean, because on this 10 list of small trees there are only 2 trees on this whole 11 list. I'm just saying, not many trees and it seems that 12 trees are at -- 13 THE WITNESS: Again, this is just meant to 14 be a point of discussion, not meant to be the species 15 that would be selected for that site per se. It's meant 16 to give the applicant more information to pick from. 17 THE PUBLIC: Quick question on the area that 18 you referenced in pictures and you talked about a little 19 bit with the deer fencing that's not here in West 20 Orange. 21 THE WITNESS: We don't have any on site, but 22 go ahead. You're talking about this. Tell me where you 23 want me to stop. 24 THE PUBLIC: Well, you know, the one where 25 you were showing off all the new growth.
118 1 THE PUBLIC: Oh, you have a cute little 2 thing from Jersey Gardens attached to your report. 3 THE WITNESS: Oh, you're talking about my 4 written report not my slide presentation. Are you 5 referencing the October 16 report? I don't know. I 6 don't know where I'm looking. 7 THE PUBLIC: A cute little thing from Jersey 8 Gardens. It was, which is one of my favorite -- 9 THE WITNESS: That's my written report 10 that's on the website. 11 THE PUBLIC: These lists of species. 12 THE WITNESS: You're referencing my -- let 13 me make sure I understand. You're referencing my 14 October 16, 2024 report, which is on the website. 15 THE PUBLIC: Isn't that what we're 16 discussing right now? 17 THE WITNESS: I'm not questioning you, I 18 just want to make sure I'm looking at the right 19 document. 20 THE PUBLIC: Yes, I am. 21 THE WITNESS: Go ahead. 22 THE PUBLIC: Yeah, you have a list here, it 23 says, small tree, shrubs and vines. 24 THE WITNESS: Yes. I gave this as a place 25 to start for discussion, yes.	120 1 THE WITNESS: Well, that could be almost any 2 of them. Is this one acceptable? 3 THE PUBLIC: New tree growth perhaps. 4 THE WITNESS: You mean this one? 5 THE PUBLIC: Is that a new -- are those 6 three new trees? 7 THE WITNESS: Some of these are new trees. 8 They didn't grow within three years, they got bigger in 9 three years. 10 THE PUBLIC: Are we inside the fence or 11 outside the fence? 12 THE WITNESS: Those are inside the fence. 13 THE PUBLIC: And those three new trees 14 inside the fence or outside? 15 THE WITNESS: Those three trees are inside. 16 They are not within three years, as I referenced in my 17 testimony. I'm talking about this growth. The 18 undergrowth coming in within three years, not a tree of 19 that size. 20 THE PUBLIC: And then the pictures that we 21 just went flying by as well, how do you know or do you 22 know for a fact that no seedlings were planted as well 23 as utilized the utilization of deer fencing in those 24 particular parks? 25 THE WITNESS: In these particular --

121 1 THE PUBLIC: In those particular parks? 2 THE WITNESS: In these three images? 3 THE PUBLIC: No, no, no. In those 4 particular parks, sir. 5 THE WITNESS: All right. This is all on 6 Duke Farms. Duke Farms Estate has, not in the areas I 7 took photographs of, but within their deer fenced area 8 they have done a riparian restoration where they have 9 taken acreage, riparian meaning, I'm sorry. Riparian 10 meaning an area where river flow is and water can 11 overflow a river area, river valley to give it 12 consideration. They have indeed gone into the riparian 13 area, which I did not go into because I was not allowed 14 in there at that time, and they have indeed done 15 plantings there. Nothing I have showed you shows any 16 plantings nor were there any plantings made. 17 THE PUBLIC: So you are testifying that Duke 18 Farms has not planted any seedling trees at all in an 19 effort to provide reforestation on their site? 20 THE WITNESS: No, I just testified that in 21 the area of riparian restoration, which I believe to be 22 200 to 300 acres, I can't be absolutely certain, they 23 have gone in, they have withdrawn and removed invasive 24 species, they have gone in with equipment to do so and 25 they have replanted with native plants. In the images I	123 1 Can you bring up that map, the famous one 2 we've been talking about. 3 THE WITNESS: I don't know which one you're 4 looking at. Tell me when I get to the slide. 5 THE PUBLIC: The one with the deer fencing 6 in the dark. 7 THE WITNESS: Okay. Is that it? 8 CHAIRMAN BAGOFF: Guys, we want to have 9 quiet so we can all hear. 10 THE WITNESS: Is that the slide you want? 11 THE PUBLIC: Yeah. 12 THE WITNESS: Okay. 13 THE PUBLIC: So I'm really, I took botany in 14 college so I'm really, I got to dumb this down for 15 myself just as a resident. Okay. I have a bunch of 16 questions. The deer fencing, is that plan to go in 17 prior to construction or after construction? 18 THE WITNESS: I don't know the sequence of 19 construction for the property. 20 THE PUBLIC: Okay. 21 One of the things I heard you testify to and 22 I think it was more of an opinion than expert testimony, 23 was that it was more humane for the deer and not 24 shooting them, right? But if the deer fencing is put up 25 before construction and they're all sloshing around in
122 1 am showing you -- 2 THE PUBLIC: That's not what I asked. I 3 wasn't asking about the images you were showing me, sir. 4 I was asking you if the site had an effort to plant new 5 seedlings or new trees or saplings in the areas that 6 were deer fenced to help the forest in its effort to see 7 through to regrowth? 8 THE WITNESS: In the upland areas, which 9 were the only ones I reviewed, based on my interview 10 with the staff member in charge of the area, they have 11 not done so. 12 CHAIRMAN BAGOFF: Ma'am, one more question 13 because we have other people in the audience who would 14 like to ask questions. One more question, please. 15 THE PUBLIC: Yeah, I think I only have one 16 more then I think you just knocked it out. I think I 17 had one more question. 18 CHAIRMAN BAGOFF: You can come back. 19 THE PUBLIC: No. 20 CHAIRMAN BAGOFF: Thank you very much, 21 ma'am. Other people would like to ask questions. 22 THE PUBLIC: Hello. 23 CHAIRMAN BAGOFF: Thank you. 24 THE PUBLIC: Kevin Mailman. I live at 27 25 Bayowski Road in the West Essex Highlands.	124 1 that smaller area and the wetlands and everything, 2 there's two things that come to my mind. Isn't it 3 possible that it would be inhumane, because the deer are 4 either going to be squeezed out and amongst construction 5 or stay in because you're assuming, when you said -- 6 testified earlier that they're just roaming around in 7 that same area. So unless that construction is just 8 magically put together and plopped down without all the 9 trucks and everything going through, like where is 10 Warner Road on this? 11 THE WITNESS: You have to help me with that. 12 Here. Isn't that it here? Oh, Warner Road, the main 13 road you're talking about. 14 THE PUBLIC: Where they would be coming in 15 from. 16 THE WITNESS: Here? 17 THE PUBLIC: Yeah. 18 THE WITNESS: No -- yeah, this is it. 19 THE PUBLIC: Because I live like up to the 20 right. I'm surrounded by forest up there. 21 THE WITNESS: Here? 22 THE PUBLIC: Yes. Well, no, the top of the 23 Highlands. Yeah. 24 THE WITNESS: That's the top of the 25 Highlands.

125 1 THE PUBLIC: Yeah, but in the right top 2 corner by the Manor. 3 So I just have a hard time understanding 4 where the deer are going to go, because they're already 5 -- well, all right, I got you. Because they're already 6 coming down into our neighborhood and they don't just 7 come along the side of my house and there's a family of, 8 two families more than eight to ten and I know you were 9 just saying what you observed while you were there. 10 There's a lot more. A lot. And I like the deer but the 11 thing is they also come into the roads in our 12 neighborhood and I feel like regardless of when the deer 13 fence -- the deer fencing comes up it's going to squeeze 14 them out or in and amongst the construction. See what 15 I'm saying? 16 THE WITNESS: Again, I can't answer your 17 question as to when the deer fencing will be installed, 18 because I'm not in control of the schedule of 19 construction. 20 THE PUBLIC: No, but in someways -- 21 THE WITNESS: I just can't answer it. 22 THE PUBLIC: It doesn't matter when it goes 23 up really, because either way the construction is going 24 to effect the deer, right? And there are trees and 25 everything. There's going to be less area for them to	127 1 the root systems or anything that are there now? 2 THE WITNESS: Well, I'm not certain of your 3 question, but if you're thinking construction here is 4 going to effect the root system here, the answer is no, 5 it won't. Might it effect the root systems immediately 6 adjacent to an area of disturbance, it's possible, 7 certainly. There is a point of which we can't control 8 that. 9 THE PUBLIC: So you're saying it would be 10 limited to just the areas right around it? 11 THE WITNESS: Yeah. We're not in here with 12 -- we. They're not in here with heavy equipment. There 13 is nothing to disturb, thus the term undisturbed. 14 THE PUBLIC: That's kind of -- 15 THE WITNESS: Along this area. If for 16 example, let's just hypothetically say, to answer your 17 question, try to answer your question correctly, let's 18 say for hypothetical argument there's a tree literally 19 right up against what might be a curb line, assume 20 there's a curb line in there. And I excavate here to 21 cut that curb line in the road and that tree is right 22 there and I disturb those roots, there's a good chance 23 that trees going to die right up adjacent to it, sure. 24 THE PUBLIC: Okay. Great. 25 So my question is this, ist that, so you're
126 1 go and you assume they're just going to stay in that 2 area, but I guess my question is, isn't that somehow 3 incorrect, because aren't they going to be squeezed out 4 of that area? 5 THE WITNESS: First, let me literally state 6 that I did not say they would stay in the area. I said 7 that they would move in all directions as they do today. 8 THE PUBLIC: I thought you meant, sorry. I 9 thought you meant, maybe I misunderstood. 10 THE WITNESS: And I may not have been clear. 11 THE PUBLIC: The neon green area. 12 THE WITNESS: Let's be clear. What I -- 13 during construction deer obviously aren't going to stick 14 around with a backhoe sitting there. I can't say they 15 will, unless maybe they will, I don't know. But, you 16 know, sure, any kind of construction activity disturbs 17 wildlife, that's not anything anyone can argue with. 18 THE PUBLIC: Okay. Fair enough. 19 You said that the areas outside -- in 20 between the deer fencing would just grow as normal and 21 as is. In the neon, right? 22 THE WITNESS: Yeah. Sorry for the color. 23 THE PUBLIC: My question about that is, 24 wouldn't that have to assume that concrete and the 25 buildings and the construction aren't disturbing any of	128 1 saying that little strip of white going up that's the 2 only place that the construction equipment is going to 3 be to build that bigger area of where the buildings are? 4 THE WITNESS: As I understand it, and I 5 don't know for certain how they're coming in, but it's 6 got to come in on a road. I mean, so that's the only 7 limitation I can give you. You can't move construction 8 equipment of a road, so I don't know the answer to your 9 question, I would defer to the applicant. I presume 10 they'd build an access road first and then they'd start 11 construction. I presume that's how it's done, but I 12 don't know that, I can't testify to that. 13 THE PUBLIC: Yeah, it's just hard for me to 14 visualize. I think about how all our decks were just 15 done and our siding and on a microlevel the area that 16 they were actually building or replacing, it was 17 impacted to a much larger degree on the outside area. 18 So I just have a hard time thinking that none of that 19 other area will be disturbed by the construction 20 equipment. 21 THE WITNESS: You know, when you're looking 22 -- all I can tell you is from my own experience having 23 done a lot of the same things you're talking about, 24 you're looking at a very small piece of property and 25 when I work on even my own yard it's the same thing and

129 1 often I have to block off what I'm doing. This is a 2 fairly large piece. There is a, as you may recall, 3 there will be staging areas. I can't attest to what the 4 applicants going to do for staging areas, I don't know. 5 I can't answer your question. But I know this is the 6 maximum area of disturbance. 7 THE PUBLIC: Okay. 8 So let's keep it to where your area of 9 testimony and expertise is. I have a question about the 10 wetlands area. 11 THE WITNESS: Okay. 12 THE PUBLIC: So it's not just that strip 13 though, isn't it down -- 14 THE WITNESS: No, there's some in here. 15 THE PUBLIC: Right. 16 THE WITNESS: And there's little bit here. 17 THE PUBLIC: Where, down below the 18 Highlands? 19 THE WITNESS: Here and here and there's even 20 a tiny little bit up in there. 21 THE PUBLIC: So deer fencing and the 22 absorption that you talked about and the runoff, isn't 23 the absorption going to stay on the right and the left? 24 In other words, I'm confused, because somehow you're 25 saying that the absorption's going to be better, but	131 1 answer your question. 2 THE PUBLIC: Right. 3 THE WITNESS: Any storm water runoff, you 4 know, in here, they already talked about and I'm not 5 going to testify to that, but I know there's been 6 testimony, there is a plan pending to deal with that 7 storm water runoff. What I talked about and all I can 8 testify to is that in the deer fenced area as 9 undergrowth continues to grow, because it can, what will 10 happen is you will have more plants in this area total 11 than there are today. More plants means more water 12 absorption. 13 THE PUBLIC: In those areas? 14 THE WITNESS: In those areas. Now, I am 15 projecting, hypothesizing, that over time due to the 16 increase in plants here, this is -- one of the board 17 members asked me the same question in a similar fashion. 18 I, again, let me make that clear. I cannot guarantee 19 anything, but I hypothesize that as there are more 20 plants growing here and more plants growing here that 21 get to seed stage, meaning they can produce seed, those 22 seeds will travel throughout the property, which is what 23 I want to happen and you would want and the more growth 24 that occurs naturally in here the more absorption we 25 could hopefully get there, because you have more plants.
130 1 it's, it's fenced off. The new undergrowth and 2 everything you're talking about is actually away, from 3 what I can tell, unless I'm misreading the map, away 4 from where the runoff is actually happening. 5 THE WITNESS: No, there's runoff in a lot of 6 directions first of all, on this property. 7 THE PUBLIC: Okay. I would love it if you 8 can explain. 9 THE WITNESS: I'll do my best. This a 10 contour map and when you see these lines here, let's go 11 to this one because they're easier to see. The closer 12 together these lines appear the steeper the slope. 13 THE PUBLIC: Oh, the little faded? 14 THE WITNESS: Yeah. You see how it goes like 15 this. 16 THE PUBLIC: Yeah. Yeah. 17 THE WITNESS: Now, I don't have the number 18 in front me but being on the site enough, this is 19 downhill, that I can tell you. 20 THE PUBLIC: Down towards where, the 21 Highlands? 22 THE WITNESS: Down here. No, this is the 23 Highlands here, right. 24 THE PUBLIC: Right. 25 THE WITNESS: So this is also downhill, to	132 1 THE PUBLIC: Because you have more planted 2 and things like that. Okay. So, but then there's the 3 deer that are still there. 4 So to go to something that was just asked 5 before and I wanted to kind of bring this up within the 6 context of the native plants that you talked about. 7 THE WITNESS: Yes. 8 THE PUBLIC: And what was asked about the 9 deer eating what the new plantings might be because 10 they're there. I mean, one of the benefits should be 11 the native plants as you discussed, correct? 12 THE WITNESS: Yes, it's wonderful to have a, 13 I rarely get, in my environmental commission, do I get 14 developers saying, I'll do all native plants. 15 THE PUBLIC: Okay. Great. 16 So -- 17 THE WITNESS: Never had, sorry. 18 THE PUBLIC: -- regardless of whether the 19 deer are eating them or not, if you have to do things 20 like do deer proof plants, deer resistant plants, does 21 that, do those plants in your expertise fit within that 22 realm of the benefit of native plants? 23 THE WITNESS: Yes, there are many native 24 plants that are deer resistant, there are many that are 25 not. But there certainly are native plants that are.

133 1 We will certainly, when I review their plans, I will 2 make emphasis to those plants. You can't always find 3 some of them but, you know, you do the best you can. 4 THE PUBLIC: Okay. 5 Can we move to the formula. 6 CHAIRMAN BAGOFF: Sir, last question please. 7 We have other people that want to ask questions. 8 THE PUBLIC: My question is, if we could go 9 to another side. 10 CHAIRMAN BAGOFF: Excuse me. 11 THE PUBLIC: My question was, can we go to 12 another slide so I can ask a question. 13 CHAIRMAN BAGOFF: Sure, one more question. 14 Go right a head, sir. 15 THE WITNESS: This one? 16 THE PUBLIC: No. Well, it's sort of this 17 one. 18 THE WITNESS: This one? 19 THE PUBLIC: Yeah, yeah. 20 THE WITNESS: Okay. 21 THE PUBLIC: This one. I don't know, I'm 22 not saying it was intentional but because of the number 23 of questions that were asked about it by the planning 24 board and my own sort of, it just came across as 25 misleading, so for all those on zoom, I just want to	135 1 not final. 2 THE PUBLIC: Okay. This is what is 3 proposed? 4 THE WITNESS: Yes. 5 THE PUBLIC: So the 5803 removed, zero 6 saved, 279 trees, right? 7 THE WITNESS: Yes. 8 THE PUBLIC: My question is, I see that 9 there' a lot of shrubs and things like that, but the 10 shrubs and the perennials and things, those seedlings 11 aren't going to create more trees. I don't know, I'm 12 not a botanist, but those don't, eventually seeds drop 13 in the ground and a tree grows. Seeds go in the ground 14 and make another shrub or perennial grows, correct? 15 THE WITNESS: You've explained it very well 16 botanically. You're right on point. 17 THE PUBLIC: Botany 101. 18 So, I mean, really your losing about 5500 19 trees? 20 THE WITNESS: All right. So let me -- I'll 21 explain that and let me point out again. The tree loss 22 at 5800 trees is maximum potential loss based on the 23 tree survey. I can't tell you with 100 percent 24 certainty there are exactly 5800 trees in the disturbed 25 area. Nor do I know that there will be that many fully
134 1 make sure I'm getting this right. The net requirement 2 replacement of 1498 over the requirement is not actually 3 a replacement. No trees are actually -- like in other 4 words, after all the discussion when I read this, 5 basically what it's saying is 5803 are being removed, 6 zero saved, I get the credit. That's from the next 7 slide or something, right? 8 THE WITNESS: Yeah. 9 THE PUBLIC: But because of the credit it 10 comes across, right, as if they're plant -- replacing 11 1498 over when actually, just to make sure I'm clear, 12 there's nothing being replanted here? 13 THE WITNESS: No, that's not true. There are 14 trees, there's 279 native trees being planted. So let 15 me explain how the number comes about. 16 THE PUBLIC: Real quick, but the 1498 17 replacement is not actually a replacement. The 279 I 18 get, but that's not a replacement of replanting, it's a 19 credit. 20 THE WITNESS: Correct. 21 THE PUBLIC: Okay. 22 Can we go to the next slide because that 23 talks to this slide. So this is what's actually being 24 planted? 25 THE WITNESS: This is as proposed. This is	136 1 removed. That is a worse case estimate that I can come 2 up with, there could be less. There could be more, a 3 little, but not much, but probably less. The other side 4 of that coin is, going to your point, you described it 5 very well. If I plant a shrub I'm going to get shrubs. 6 Shrubs don't turn into trees. But trees can turn into 7 trees and most importantly in the deer fenced area I 8 have large healthy trees and those large healthy trees 9 are dropping seeds today, acorns, maple leave seeds, 10 etc., etc., etc. The problem is the seedlings that do 11 come up get eaten. So the trees will come from the 12 trees that are already in the forest, including in the 13 undisturbed area, those seeds with travel by animals, et 14 al. 15 THE PUBLIC: Unless the deer eat them. 16 THE WITNESS: Well, deer will eat acorns. 17 If you have a good year they eat lots of acorns, you 18 have healthy deer. Squirrels will take those acorns and 19 move them into the fenced areas. So -- 20 THE PUBLIC: I just really wanted to clearly 21 understand -- 22 THE WITNESS: You absolutely explained it 23 correctly. 24 THE PUBLIC: -- the formula. 25 Because the other thing, my question about

137 1 the 212, it comes across as generosity. You're being 2 generous, statistically speaking, in terms of the number 3 of trees per acre, right? But if you go back a slide to 4 the one we were discussing. 5 THE WITNESS: This one? 6 THE PUBLIC: Yeah. My question is, because 7 I'm also not a mathematician unfortunately and I don't 8 know what the ordinance that was based off of the 9 settlement what that formula says. But by using the 10 212, does that somehow give you, because you're using a 11 maximum, that net required replacement credit over the 12 requirement by using a bigger numerator, let's say, 13 doesn't that give you a bigger credit as well? 14 THE WITNESS: Yes, I've stated that. Look, 15 the bottom -- the way I had to figure that is, as I 16 stated, just to show you on that slide. As I said, this 17 is a worse case scenario, the 212, when we're talking 18 about tree removal. Well, as a matter of equity I can't 19 say it's 212 per acre for removal but I'm only going to 20 credit you 50 when you're deer fenced, because my goal 21 in the negotiated section was to say, I want more 22 acreage of deer fencing, therefore when you negotiate 23 this, the way I've done it, is to negotiate and say, 24 we'll give you 212 for that area too, so you get credit 25 for it. So you give me more acreage.	139 1 an apples to apples fair comparison about what will 2 happen when we're talking about a heavily canopied 3 forest versus an open air -- 4 THE WITNESS: Here's a heavily canopied 5 forest. Here's a heavily canopied forest. So these are 6 all deer fenced and show you that within -- that's about 7 nine years to give context. 8 THE PUBLIC: So deer fence there might -- my 9 question is -- 10 THE WITNESS: Look here, this is a heavily 11 canopied forest. 12 THE PUBLIC: And those trees are new or the 13 undergrowth is new? 14 THE WITNESS: All of this, this is not. 15 This is nine years, you have vines in here, you have 16 young seedlings. This would have been here already, 17 this would be typical of, by the way, the property, this 18 is not that property obviously. 19 THE PUBLIC: I see it slopes down. 20 THE WITNESS: Yeah, this is a different 21 thing, but you can see that within nine years I have 22 young trees growing in there. Now, what will drive 23 that, which goes to your question and it's a good 24 question by the way. You did well in Botany 101. 25 THE PUBLIC: I liked that class.
138 1 THE PUBLIC: Right, but by getting that -- 2 THE WITNESS: Which they did, by the way. 3 THE PUBLIC: -- the developer does get a 4 bigger credit as well? 5 THE WITNESS: Yes. 6 THE PUBLIC: Okay. 7 Last question for now, because I really have 8 so much, but going back to the three-year that you were 9 looking at where you're looked at the new undergrowth. 10 THE WITNESS: Yup. This one? 11 THE PUBLIC: Yeah. Where you said those 12 trees enhance the undergrowth. When I look at that 13 picture, I walk that forest, it's right behind -- 14 THE WITNESS: It's beautiful. 15 THE PUBLIC: I take my dog back there and 16 it's a pretty heavily canopied forest, wouldn't you say? 17 THE WITNESS: Oh, it's absolutely a heavily 18 canopied forest. Mature canopy forest. No argument. 19 THE PUBLIC: Okay. 20 But when I look at that picture, it looks 21 like it's open in the sunlight with not a lot of canopy 22 cover. 23 THE WITNESS: That's correct. That 24 particular image, that's correct. 25 THE PUBLIC: So my question is, is it really	140 1 THE WITNESS: The area here, I will get much 2 more rapid undergrowth because I have more sun. That's 3 your point, if I get you correctly. However, it doesn't 4 matter whether I have a mature forest or not because I 5 still get sunlight and trees are rather amazing in how 6 they can come up with the right amount of light, so to 7 speak. Those that survive will grow in that tall 8 canopied forest. It's not that dark in there. Even 9 though it's a mature canopy, it's fairly bright, which 10 means there's enough light for these trees to grow. 11 That's a very good observation on your point and you can 12 see that even in this one. This is just a field that's 13 now been deer fenced. But you can see here and I show 14 you this only because, yes, is it an open field, you're 15 correct. 16 THE PUBLIC: Does that matter to your three 17 to five-year estimate? In other words -- 18 THE WITNESS: Yes. 19 THE PUBLIC: -- with a canopied forest -- 20 THE WITNESS: You won't see this in three 21 years, that's not what I'm trying to tell you. What I'm 22 trying to say is in three years or so, this is one year 23 -- sorry, let me go forward. I'm going to blow this 24 machine up again, that's my problem. This is one year 25 of deer fencing in an open field. Before that there

141 1 was, this thing had been heavily browsed. That's nine 2 years of a completely mature forest like this one that 3 we're talking -- nine years like this forest that we 4 have here of growth. So it's undergrowth and young 5 trees coming back into play because to go to your exact 6 point, within the deer fencing I can grow young trees. 7 I'll get seedlings, I'll get saplings in nine years. 8 Different species but I'll get them. 9 THE PUBLIC: I do have one last question, I 10 promise you. This is a really dumb question. 11 THE WITNESS: There's no such thing. 12 THE PUBLIC: Really like Botany 000. 13 THE WITNESS: Okay. 14 THE PUBLIC: Or Deer 000. 15 If the forest is so unhealthy, and they're 16 eating everything and everything is eaten, why is there 17 still so many deer back there? 18 THE WITNESS: You have two questions there 19 that are very good. First, let me make it very clear. 20 When I called the forest unhealthy, this is not to say, 21 with the exception of some of these species that I 22 stated earlier, which are currently infected like beech 23 and ash. What I am saying is it, on a long-term basis, 24 from an environmental standpoint, I have a forest that 25 cannot regenerate itself and therefore as more trees die	143 1 abundance of transfer of seed from the fenced areas to 2 the unfenced areas might produce enough growth that we 3 can reach some basis, some balance and new growth will 4 be there. Will I tell you that will occur, I can't 5 promise you that. But it is possible that will occur. 6 It is possible and studies have shown that the invasive 7 species when you have enough native species competing 8 lose. Which I would, if you would've asked me that 40 9 years ago I would have not agreed with that, but studies 10 have been done to show that that works and I'm grateful 11 for that research. But that is what I'm suggesting. I 12 cannot guarantee that in that unfenced area the deer 13 won't continue to do damage in perpetuity. I have no 14 way of projecting what they will do. 15 THE PUBLIC: Not even necessarily that. 16 What I meant in perpetuity is, you said they do drop 17 seeds and then it grows and the deer do eat them. 18 THE WITNESS: And maybe they stay there for 19 that reason. 20 THE PUBLIC: And seeds will drop again, the 21 deer will eat them and everybody will live happily, 22 right? 23 THE WITNESS: It would be wonderful if it 24 worked that way. I vote for it. 25 THE PUBLIC: Kind of a form of stasis,
142 1 the forest will become sparse over time and I want to be 2 clear again, when I talk the life of trees, I could be 3 going out 200 years in some cases but not all trees live 4 that long. The question was asked earlier on, on that 5 same premise, the health of the forest, what if we get a 6 hurricane. That forest is going to open up very quickly 7 if we have a very bad storm potentially, depending on 8 how the storm hits, what trees get thrown down. The 9 point in that is that what happens with the deer now, 10 why are they in there, I'm not saying they don't eat 11 anything, because the trees are dropping seeds. The 12 plants are dropping seeds, the animals are bringing 13 seeds, they grow. The deer go there to eat them. The 14 other thing the deer will do there is nest -- not nest 15 but they will rest and sleep because they're 16 undisturbed. 17 THE PUBLIC: And wouldn't that continue in 18 perpetuity though? 19 THE WITNESS: For the unfenced areas that's 20 very possible that will. In that unfenced area that is 21 possible. But as I also stated, it's also possible that 22 with the regrowth in the deer fenced areas and the 23 abundance of new seed and new plants that could come 24 through, there is a chance, I can't tell you it's 25 guaranteed of course, but there is a chance that that	144 1 right? 2 THE WITNESS: Yes, it is. In a perfectly 3 healthy -- you're absolutely right. You did very well 4 in botany. In a perfectly healthy forest that's 5 essentially what happens. 6 CHAIRMAN BAGOFF: I'm going to certify you 7 in Botany 101. 8 THE PUBLIC: I want to be board certified. 9 I'll be the next expert hopefully. 10 CHAIRMAN BAGOFF: Thank you very much. 11 Appreciate your time. 12 Come up to the mic. State your name for the 13 record, please. 14 THE PUBLIC: Question about the pictures. 15 Rachel Klein, Howell Drive. 16 Couple questions specifically about the area 17 to the east of the ridge line. 18 THE WITNESS: Here? 19 THE PUBLIC: Yeah. 20 THE WITNESS: I have one question, you're 21 not overseeing the actual, the putting up this deer 22 fencing, right? 23 THE WITNESS: That will depend on when that 24 gets done and whether I'm still under retainer, but the 25 plan is to have someone oversee the deer fencing going

145 1 up, yes. 2 THE PUBLIC: How many gates do they plan on 3 putting in there? 4 THE WITNESS: How many? 5 THE PUBLIC: Gates. 6 THE WITNESS: That hasn't been finalized yet, 7 but generally I would expect one or maybe two and they 8 would be up here. That would be the plan if they want 9 people in this area. I haven't discussed this with 10 them. This is pretty steep. 11 THE PUBLIC: I know. The gates, you see 12 there's a sewer line that goes through. 13 THE WITNESS: Yeah, the sewer line is right 14 here. 15 THE PUBLIC: Yeah. So the sewer line is 16 under investigation right now by the county and the 17 state, so you can't block it. Like it's got to be 18 accessible. 19 THE WITNESS: Yeah, as far as I understand, 20 that's true, but I can't testify to that. But I 21 understand there's a sewer line and they have to deal 22 with that. 23 THE PUBLIC: Is that orange line a sewer 24 line also? 25 THE WITNESS: No, no, sorry. That's my	147 1 looks like it goes to. 2 THE WITNESS: You know, again, this is a 3 conceptual layout with them. 4 THE PUBLIC: So it may not be that big? 5 THE WITNESS: It may be. Vernal ponds, I 6 have to look at the regulations. I would have to defer 7 to the planner for that because I'm not going to quote 8 on that. But typically if they, again, the posts don't 9 have to be perfect in alignment. So you might be on 10 either side of that and they'll have to work on that. 11 THE PUBLIC: Yeah. 12 THE WITNESS: The goal is not to disturb 13 this. 14 THE PUBLIC: But it's a pretty nice space. 15 Also there's things like milkweed on the 16 northern side, a lot of it, that's protected too. And 17 you're fence, I know it's your, just a rendering, but it 18 also kind of goes right through that. So you're going 19 to have to come more south to avoid -- 20 THE WITNESS: I mean, if it has to go into 21 the milkweed area, truthfully botanically I'm not 22 worried about few a milkweed plants are disturbed by a 23 post. We can collect the seeds and redisperse them. 24 The good news is growing back in there they'll have a 25 better chance of surviving.
146 1 line. That is trying to show you, I did this in a 2 earlier map. This is the limit of the ridge here, so 3 it's just trying to show that this is the, and believe 4 me this is not to scale, bear with me on this, I'm not 5 an architect. 6 THE PUBLIC: I can tell, it's a little -- 7 THE WITNESS: Yeah, it's a little squiggly, 8 my hands not that firm. This is showing that basically 9 any water that falls on this side of the line is going 10 to go this way and any water that falls on that side of 11 the line is going to go that way. 12 THE PUBLIC: Okay. 13 THE WITNESS: Think of it as a continental 14 divide. 15 THE PUBLIC: I wrote my questions down and 16 two hours past, so I need a minute. 17 So you said you walked the property but 18 you're not that familiar with the east. There's vernal 19 water in the east. 20 THE WITNESS: In here? 21 THE PUBLIC: Yeah. 22 THE WITNESS: Yeah. There's some, yes. 23 THE PUBLIC: And you're not going to be 24 putting any of the fencing into it, right? Because it 25 goes pretty much down to Mayfair Drive, which the fence	148 1 THE PUBLIC: Out of curiosity, if three to 2 five years it doesn't regenerate, like you're hoping it 3 will, is there any plan for what we're going to do when 4 you, you know, look back on this and say, oh, the deer 5 fence didn't work? 6 THE WITNESS: I can't, again, guarantee 7 anything in terms of growth in an area obviously, but I 8 would say to you, I have yet to read any studies of deer 9 fencing that say it doesn't work and you don't get 10 regrowth. So this would become a first. 11 THE PUBLIC: Sorry, I lost my question. 12 Sorry, if I think of it I'll come back. Sorry. If I 13 find my question I'll come back. Sorry. 14 CHAIRMAN BAGOFF: Thank you. 15 Come right up. State your name for the 16 record, sir. 17 THE PUBLIC: Patrick Laterza, L-A-T-E-R-Z-A. 18 I live in Verona. 19 So I know we've gone over this a lot, but 20 I'm going to go back to it. The math of the 212 tree 21 credit. So -- per acre credit. So how are you coming 22 to the credit of 212 trees in the deer fenced area? Are 23 we saying you're going to expect twice as many trees to 24 grow in that area? 25 THE WITNESS: No. The tree credit is based

149 1 on the original tree survey, which statistically showed 2 density of tree growth per acre in the area in a ring. 3 What I did was take the highest density of tree growth 4 per acre, especially when first looking at it -- sorry. 5 Looking at the disturbed area to show the maximum 6 potential loss of trees. However, as a matter of equity 7 I had to use then that same calculation, which is what I 8 did when calculating the credit per acre of area fenced 9 and the reason that I did that, as I stated, is to 10 enhance and encourage more acreage being deer fenced to 11 encourage greater forest growth. Because there is a 12 cost factor to each acre of that deer fencing going in. 13 And that, I don't have an exact cost because there is no 14 exact estimate in front of us from a fence company, so 15 we don't know the cost, but I know it to be expensive. 16 So the idea was, hey, I want to encourage you to do more 17 deer fencing to allow for forest growth. I am pleased, 18 especially in the steep slope area for a lot of reasons. 19 One, more plants, as I stated, absorb more water, 20 therefore I use the 212 for that as well. 21 THE PUBLIC: Okay. 22 So I'll come back to part of that. But 23 wouldn't that then be the assumption that all the other 24 trees are going to die? 25 THE WITNESS: No.	151 1 as if you planted. In this area, that is in the white 2 or disturbed area, we're saying, again, using 212 trees 3 per acre, that there's a good likelihood that all these 4 trees that currently exist in there are going to come 5 out. We don't know they all will yet, but I'm going to 6 say they are for purposes of saying the highest number 7 of trees that can be removed. That does not mean that 8 these trees in this ugly green that I selected are going 9 to die, it simply means I'm not giving them credit for 10 it which in theory I could have in the negotiation but I 11 don't, I only give them credit for the area here. I'm 12 not saying these trees are going to die. These trees 13 have as good a likelihood of living as any other tree in 14 town. But there's -- so I'm not presuming they're going 15 to die. I hope they don't die. 16 THE PUBLIC: But you are because you're 17 giving them credit against trees being cut down. So 18 you're giving them double credit in areas that the deer 19 fence is. So you're saying -- so mathematically you're 20 basically saying there's twice as many trees in that 21 area there than anywhere else? 22 THE WITNESS: No, I'm saying there is the 23 same density of trees -- in the calculation what the 24 conclusion is, is that the same density of trees exist 25 here as exists here. Ergo giving credit for every
150 1 THE PUBLIC: Well, if you're giving credit 2 for the exact number of trees that are there already, 3 right? You're saying, I understand it's statistical, I 4 get that. So you're saying that you're just giving 5 credit for the exact trees that are there? 6 THE WITNESS: I'm giving credit for the trees 7 that currently exist, yes. 8 THE PUBLIC: Yeah. So then the other 9 assumption is every other trees going to die. So 10 instead of saying they're getting credit for -- 11 THE WITNESS: I'm sorry, I don't understand 12 what you mean by that assumptions? 13 THE PUBLIC: If your only getting credit for 14 trees that exist in the deer fence that means all the 15 other trees are going to die. 16 THE WITNESS: No. This is a -- 17 THE PUBLIC: If you're giving them credit 18 for that, you're giving extra credit for trees that are 19 there. 20 THE WITNESS: Okay. I think I see the 21 question and I think I see the cross here and I'll try 22 to answer best I can. 23 THE PUBLIC: Please. 24 THE WITNESS: Using the credit for trees in 25 the fenced area is to say I'm giving you the equivalent	152 1 density of tree here for every acre of 212 trees if you 2 deer fence it to offset the 212 trees per acre that I'm 3 saying you're going to cut down to build this building 4 or these buildings. 5 THE PUBLIC: But giving credit for trees 6 that already exist does not offset trees being cut down? 7 CHAIRMAN BAGOFF: Sir, I'm going to stop 8 this. 9 THE PUBLIC: How does -- I will ask it as a 10 question. 11 How do trees -- how does giving credit 12 offset trees being cut down? 13 THE WITNESS: Good question. The answer is 14 that we know I'm not getting regeneration in this 15 forest. So to maximize regeneration of the forest, 16 which will, from my hypothesis and we hope to be as I've 17 observed in other areas, if the deer allow it we will 18 see tree growth spreading into these other undisturbed 19 areas as this area becomes more densely populated. It 20 is a negotiating tool to encourage the installation of 21 high cost fencing by giving that credit. Otherwise all 22 I would say is, all right, maybe I would put more trees 23 in here which does nothing to help the forest overall. 24 THE PUBLIC: So then how long would it take 25 for the growth to, in the, the undergrowth to offset the

153 1 water absorption and regeneration of the 5803 trees that 2 have been, mature trees, being cut down? 3 THE WITNESS: Okay. So the storm water plan 4 will deal with this. That is the whole premise which I 5 cannot opine to the details. But a storm water plan 6 deals with the disturbed areas. That is why the state 7 requires a storm water plan for disturbed areas. The 8 undisturbed areas won't change. That's a whole separate 9 issue. This area is not disturbed and will be deer 10 fenced so it should have less runoff over time because 11 it will have more trees. More plants, I won't just say 12 trees. Let me just be clear, talking all plant growth, 13 could be ferns and anything else. So the answer to your 14 question is, storm water planning deals with this, 15 that's why this is here, this is here and this is here. 16 That's all by storm water planning. This area and this 17 area and this area will be similar to what it is today. 18 THE PUBLIC: Okay. 19 Just quickly an accounting of the samplings. 20 So when was that study done? 21 THE WITNESS: 2019. The original study was 22 2019. 23 THE PUBLIC: What date? 24 THE WITNESS: I don't have the exact date in 25 front of me.	155 1 THE WITNESS: Yeah. 2 THE PUBLIC: I want to see the count. 3 MS. MCGOVERN: The raw data? 4 THE PUBLIC: Yeah. 5 MS. MCGOVERN: Do you have it? 6 THE WITNESS: Yes. 7 CHAIRMAN BAGOFF: You can produce it, you 8 don't have it with you? 9 THE WITNESS: I don't have it with me. 10 CHAIRMAN BAGOFF: Can you produce it? 11 THE WITNESS: Yeah. 12 MS. MCGOVERN: There's nothing -- 13 THE WITNESS: I'm not going to contradict 14 anything. 15 MS. MCGOVERN: Well, there's nothing in 16 that report that requires attorney/client privilege? 17 THE WITNESS: Okay. 18 MS. MCGOVERN: You're just going to produce 19 them as is. You're not asking for an explanation or -- 20 it's just raw data or however the data is -- 21 THE PUBLIC: That's fine. 22 MS. MCGOVERN: -- currently. 23 THE WITNESS: This is the explanation, what 24 I've done. 25 MS. MCGOVERN: Understood. You're going to
154 1 THE PUBLIC: Was the picture, the same day 2 the picture was taken? 3 THE WITNESS: No. It would have -- I'd have 4 to look, I don't remember offhand. 5 THE PUBLIC: Okay. 6 I think it's an important question there. 7 THE WITNESS: Go ahead. 8 THE PUBLIC: Because the picture that you 9 put up was December 10, I believe. 10 THE WITNESS: Let me go to it rather than 11 guess, shall we. I don't have a date on that one. 12 There you go. Yup. Good observation. Thank you. 13 THE PUBLIC: So once again it shoes the fact 14 of zero saplings. A, were the arborist's/foresters that 15 were on there at that outing instructed to count 16 saplings? 17 THE WITNESS: Yes, they were told to look 18 for them in those study plots. Sure. 19 THE PUBLIC: Is it possible to see their 20 side of the report that they gave to you that you put 21 into your report? 22 THE WITNESS: It's a working document. 23 He's asking -- did you hear the question? 24 MS. MCGOVERN: Yeah. You want the notes, is 25 that what it is?	156 1 get raw data for us? 2 THE PUBLIC: And my follow-up? 3 MS. MCGOVERN: Not you personally, it's 4 going to be -- 5 THE PUBLIC: I know. I understand you're 6 not going to send me a bunch of stuff. My e-mail is 7 full enough as it is. 8 CHAIRMAN BAGOFF: Last question, sir. 9 THE PUBLIC: Sure. 10 This is in December, obviously there's 11 snowfall, wouldn't it be difficult to see saplings and 12 small trees, shrubs and other things? 13 THE WITNESS: There was virtually nothing on 14 the ground there. I was out there. The short answer 15 is, at least in that area, no, it would not be 16 difficult. In fact it would be easier, because I 17 wouldn't have any interference from the leaves or 18 anything else around. So, no. 19 THE PUBLIC: Okay. 20 My last question. I'll step away. 21 CHAIRMAN BAGOFF: Thank you. 22 THE PUBLIC: Good evening. Seth Weisleder, 23 W-E-I-S-L-E-D-E-R, West Orange. 24 So I guess a couple of questions. I think 25 what I'm looking at is that, those are the study plots?

157 1 THE WITNESS: Yes. From the study, yes. 2 THE PUBLIC: Okay. 3 You mentioned, and this is as you were 4 talking, the study plots were very random in the entire 5 forest, but they look pretty condensed to each other. 6 If they were random they would be kind of all over. If 7 I put a blindfold on and shot darts at the screen, sorry 8 it's late, they wouldn't be condensed. So how is this 9 not bias? It's on the footprint of the construction 10 property -- 11 THE WITNESS: Correct. 12 THE PUBLIC: -- it's entirety. 13 THE WITNESS: It's randomized within the area 14 of disturbance was my testimony. 15 THE PUBLIC: The area of disturbance? 16 THE WITNESS: We focused on the area of 17 disturbance. But the plots within the area of 18 disturbance are randomized. 19 THE PUBLIC: Right. Well, why wouldn't you 20 focus on the plots that are most vulnerable, like the 21 areas we were discussing to understand the density? I'm 22 just not understanding. 23 THE WITNESS: Well, because there is no area 24 of disturbance here. There is no disturbance here. 25 We're focused on what is the worst case scenario that	159 1 that says, hey, this is the formula you should use to 2 determine tree replacement with deer fencing, etc.? 3 THE WITNESS: The formula, the replacement 4 and the credits were all a consequence of findings of 5 the study, which are the basis for the negotiation which 6 ultimately led to a settlement, that's correct. There 7 is not a third-party that said -- 8 THE PUBLIC: So you created it? 9 Was it created by your suggestion? 10 THE WITNESS: Well, yeah. Yes, I take 11 responsibility. 12 THE PUBLIC: Okay. I just wanted to know, 13 there was no industry standard out there? 14 THE WITNESS: No. 15 THE PUBLIC: So I want to make sure I'm 16 understanding. Can you explain that in five years you 17 said there was no growth, correct? 18 THE WITNESS: In the five years I've seen 19 virtually no change in the forest, correct. 20 THE PUBLIC: Okay. 21 So -- so we talked about the, you said the 22 undergrowth, right? 23 THE WITNESS: The understory, the 24 undergrowth, whatever you want to call it. 25 THE PUBLIC: What about the, when you did
158 1 can occur. This is obviously, if you look at it 2 carefully, not exact at the time, this is the best rough 3 outline that we had so we focused on that area to 4 determine the worst case scenario. 5 THE PUBLIC: Okay. Of tree removal? 6 THE WITNESS: There you go. 7 THE PUBLIC: Okay. Fine. I'm sorry. 8 THE WITNESS: No, no. That's okay. 9 THE PUBLIC: Okay. I thought the study 10 plots were used to determine the health and the 11 statisticals of the trees and stuff? 12 THE WITNESS: It was the tree density we 13 were looking for. The health came -- the health you 14 have to do observationally. 15 THE PUBLIC: Right. But the study plot and 16 the tree density came from a formula? 17 THE WITNESS: Correct. 18 THE PUBLIC: Okay. 19 So this formula was created specifically for 20 the agreement and then hence the ordinance? 21 THE WITNESS: I'm not certain what formula 22 you mean now. 23 THE PUBLIC: The formula of the replacement 24 that was created by, there's no standard formula that 25 was used by an association, another government agency	160 1 this study, what about the overall health of the trees 2 themselves? 3 THE WITNESS: The mature trees, as we stated 4 earlier, as I stated earlier, the mature trees appear 5 healthy with certain exceptions. We did not do an 6 analysis of every tree in the forest. But the mature 7 trees with the exception such as American beech, which 8 we did note are now, of course in December I wouldn't 9 have noted that in 2019, but since we were there in the 10 summer we noted that beech trees are infected with beech 11 leaf disease, which we know, based on studies and 12 reports done throughout the northeast, is fatal to beech 13 trees. So those trees are not healthy, they're sic. We 14 know that ash are unhealthy generally in most forests 15 and sadly we think moving towards extinction due to 16 Emerald Ash Bore and ash disease. Those trees would not 17 be deemed healthy overall. Did I look at every ash 18 tree, I did not. Did I look for evidence of Emerald Ash 19 Bore, I did not. I don't need to, it's here. We see it 20 everywhere. I don't need to look at the trees to know 21 that in all likelihood many are infected. 22 Overall the oak trees, if I looked at them, 23 they looked healthy overall. We didn't analyze the 24 trees per se, but based on growth and canopy and 25 everything else observationally I would say that from

161 1 the perspective of the overall canopy layer the trees 2 appeared healthy. That doesn't make the forest healthy, 3 it makes the trees within the forest healthy. 4 THE PUBLIC: So you noticed the beech leaf 5 disease five years ago or just recently? 6 THE WITNESS: The beech leaf disease we 7 noticed this summer. 8 THE PUBLIC: Okay. 9 THE WITNESS: That's relatively knew to the 10 northeast. 11 THE PUBLIC: And there's no cure? 12 THE WITNESS: To the best of my knowledge 13 there's very limited cure. It's sort of like the 14 disease for ash. You can protect an ash tree but it 15 takes one-on-one care with injections of pesticide to 16 the system. To the best of my knowledge, as a botanist, 17 there was no cure for beech leaf disease. It's being 18 researched, companies like Bartlett and SavATree and of 19 course Rutgers, et al., are all looking to see what -- 20 we know to what causes it, which is a mite, but we don't 21 know what the cure is. Not yet. 22 THE PUBLIC: Kind of manage it and slow the 23 spread is what you're kind of saying? 24 THE WITNESS: You know, that's a good 25 observation and a tough question. The only way to	163 1 are invasive plants that currently crowd out native 2 plants. Because I don't have enough native plants to 3 fight back, they're winning. So those are also 4 discouraging the growth of new plants. Other than that 5 the answer is in science we don't like to use the words 6 always and 100 percent. Predominately and probably is 7 the best I could give you. Short of literally going in 8 there and counting every single tree and doing hundreds 9 and hundreds of soil logs, which would tell me no more 10 than I have probably just told you, except with 11 mathematical certainty. 12 THE PUBLIC: So it's all, let's just say 13 from what you just said then, it's 100 percent of nature 14 that has caused this forest not be healthy? 15 THE WITNESS: No, it's humans that caused 16 this forest to not be healthy, through planting of 17 invasive species, probably in every yard that I look at 18 in the state of New Jersey and in West Orange, with 19 certain exceptions. I won't say every one, but many 20 people. With the plantings, with the movement of 21 plantings across state lines. People for example have 22 taken emerald ash bore and transplanted it across state 23 lines by letting -- taking firewood illegally out of 24 another state. So it's human activity that probably 25 would be the cause.
162 1 manage spread of a disease like that is to cut down 2 every tree that's infected and burn it, but not exactly 3 feasible in a forest. 4 THE PUBLIC: So just to make sure I'm 5 understanding your report, that the issue and condition 6 of the forest, the undergrowth, that cannot be 7 generated, is a hundred percent because of the excessive 8 deer browsing? 9 THE WITNESS: Predominately. I wouldn't say 10 100 percent but predominately because of deer browse, 11 which is common throughout forests in the northeast and 12 especially the Mid-Atlantic states in particular. 13 States like New Jersey which are densely populated. 14 THE PUBLIC: Well, what else in the forest 15 would you observe that could have caused this? 16 THE WITNESS: I didn't look for -- 17 THE PUBLIC: You didn't say 100 percent. 18 This seems to be, the discussion of it seems to be 100 19 percent that the deer is our issue, but you're not 20 saying 100 percent, so what else did you observe? You 21 walked through the forest several times, couple times, 22 120 acres, what else did you observe? 23 THE WITNESS: The other issue that's in there 24 that is helping to deter good growth is invasive species 25 invasion. Japanese stiltgrass, Japanese barberry, these	164 1 THE PUBLIC: So did you observe any bonfire 2 pits in this 120 acres? 3 THE WITNESS: Yes. 4 THE PUBLIC: Motorized bike trials? 5 THE WITNESS: Yes. One. 6 THE PUBLIC: Did you notice any dog walkers 7 coming through with their dogs? 8 THE WITNESS: I didn't see any trespassers 9 at the time that I was there. 10 THE PUBLIC: Okay. 11 Litter. How about litter, lots of litter? 12 THE WITNESS: There was litter on different 13 inspections from time to time. Typically what I -- what 14 looked to be beer parties based on the number of cans 15 and what they were. 16 THE PUBLIC: Glass? 17 THE WITNESS: Broken glass, beer bottles. I 18 did see some wine bottles. 19 THE PUBLIC: Any large pieces of concrete? 20 THE WITNESS: I don't recall seeing large 21 concrete. There was a squatters shack at one time on 22 the property that we found with an easy chair in the 23 middle. I don't know how they got it the there. I give 24 them a lot of credit for perseverance. But, yes, those 25 things have all been seen isolated.

165 1 CHAIRMAN BAGOFF: We're done with this line 2 of questioning. 3 THE PUBLIC: Okay. No, I mean, I guess this 4 has been vacant for 20 years private property, so let me 5 get to my point then, that you could maintain a forest 6 to be healthy, correct? I mean, how do we -- sounds 7 like a matter of urgency right now this forest cannot 8 grow but over 20 years of being vacant you can manage a 9 forest to be healthy and stay healthy by eliminating a 10 lot of these issues that we were discussing coming up to 11 this time? 12 THE WITNESS: Well, again, as I stated to 13 you, the issues that you kept enumerating are 14 observational one-offs. You know, this small area, that 15 small area. They are not effecting the forest as a 16 whole. 17 CHAIRMAN BAGOFF: I don't want to lose 18 sight. This is an application to do a project. 19 THE PUBLIC: Correct. 20 CHAIRMAN BAGOFF: The applicant, based on 21 the zone plan, has a right to do certain things. Now, 22 if this was owned by the town, state or the county 23 these/they or the applicant could have decided to leave 24 the forest. Yet he chose to do something, so we're 25 listening to information to help us make a reasonable	167 1 look at. How this occurred, our expert is discussing. 2 All the other things that are there may have added to 3 what he has presented as an expert. 4 MR. AFRAN: I must take issue with that with 5 respect. The zone plan actually requires Mr. DeFeo's 6 testimony as an environmental consultant in this case 7 and this board. And Mr. DeFeo opened the issue to this 8 board of the deer over browse as the primary cause of 9 the lack of forest regeneration. Assuming all that to 10 be true, and therefore questions directed to other 11 potential causes are directly responsive of what the 12 expert has introduced on his own. And therefore 13 regardless of what the developer could do in it's own 14 initiative the expert, who's required by ordinance to be 15 here, has introduced the subject that naturally provokes 16 these questions. I think they're highly relevant. 17 CHAIRMAN BAGOFF: The easiest way to satisfy 18 you is ask the expert, are the things that he just said 19 pervasive or focused? If it's pervasive, it's relevant. 20 If it's not pervasive for the whole 120 acres, then it's 21 focused. If it's focused then do these issues cause the 22 whole area to fall into the category that you described. 23 MR. AFRAN: Well, with respect, the witness 24 never said, made a distinction between focused and 25 pervasive, you have. Now, I understand you may have a
166 1 decision, does this fit the zone plan. 2 THE PUBLIC: 100 percent, I agree. 3 CHAIRMAN BAGOFF: Okay. Good. So let's 4 move on. 5 THE PUBLIC: Yes. 6 CHAIRMAN BAGOFF: Thank you. 7 THE PUBLIC: Mr. Chairman, thank you. 8 I just, there was more discussion on deer 9 than any other things that was causing the underlying to 10 grow, that's why I was asking that or asking those 11 questions. Because -- 12 MR. AFRAN: I'd like to raise a response to 13 the chairs statement. 14 CHAIRMAN BAGOFF: Mr. Afran. 15 MR. AFRAN: I have to agree with the member 16 of the public speaking because there was enormous focus 17 on deer over browse giving rise for the deer fence and 18 how this general settlement is a good deal because we 19 get a deer fence. So inquiry by public about other 20 possible causes of harm to the forest is directly within 21 the point Mr. DeFeo brought to the board. So I would 22 say this is highly relevant. 23 CHAIRMAN BAGOFF: If the applicant chose to 24 do something, remember this is private property, is this 25 within the zone plan is what the planning board has to	168 1 idea how this thing works, but that's not the witnesses 2 testimony. And regardless of that concept that maybe 3 sought as valuable to some, including yourself, the 4 public has a right to question by their own questions 5 not directed or captained by the chair. 6 CHAIRMAN BAGOFF: And the public has had the 7 right. 8 MR. AFRAN: Right. And I'm staying in 9 response to your response to this member of the public, 10 it is relevant for him to be asking about other causes 11 of the alleged forest degeneration. That's all I'm 12 saying. 13 CHAIRMAN BAGOFF: At the end of the day, the 14 applicant takes that information and decides what they 15 want to do with it. 16 MR. AFRAN: Well, this board has the duty to 17 hear the expert and the ordinance says so. We don't 18 assume that's meaningless verbiage in the ordinance. 19 Mr. DeFeo is here because this board must consider all 20 the issues he's raised. So it's not just on the 21 applicant at the end of the day could do in its own 22 initiative. This board by ordinance is directed to 23 study that testimony, questions of the public, respond 24 to him and my cross examination. So it's not solely 25 within the hands of the applicant. This board has the

169 1 actual legal duty to evaluate what is being said. 2 CHAIRMAN BAGOFF: And the board is. 3 MR. AFRAN: No, I'm not saying you're not. 4 But it's not limited to what ultimately the applicant 5 might want to do. The board has an independent duty to 6 look at this evidence. It's got nothing to do with what 7 the applicant could or could not do. This evidence must 8 be heard by the board and all responsive questions are 9 valuable. It's got nothing to do with what the 10 applicant might want. I'm just pointing this out, that 11 it's not as limited with respect as you're saying. 12 CHAIRMAN BAGOFF: Agreed. The applicant -- 13 the public has been asking the questions. 14 MR. AFRAN: All I'm trying to do is, I think 15 it's relevant and I didn't mean to go on this length. 16 CHAIRMAN BAGOFF: No, I counted five times 17 that we heard the same information over the time the 18 public's here and there's no problem with that. So what 19 you're saying is the board should hear it, and we have 20 five times. 21 MR. AFRAN: No, no objection to the patience 22 and commitment of the board. I just wanted to point out 23 the relevance issue and I didn't mean that we needed to 24 go on at length. My apologies. 25 CHAIRMAN BAGOFF: It's always a pleasure,	171 1 But there is going to be construction, there is going to 2 be -- 3 THE WITNESS: I'm sorry, this is off the 4 property map. 5 THE PUBLIC: No, it's still on the property 6 map. Right there. That's it. On the line. 7 THE WITNESS: Here? 8 THE PUBLIC: Right. In that little corner 9 right there. That's the slope that -- 10 THE WITNESS: Here? 11 THE PUBLIC: Right. 12 THE WITNESS: Okay. Sorry. 13 THE PUBLIC: So to help prevent water, 14 excessive runoff, could that be included or not included 15 to encourage growth there to prevent any flooding 16 through the homes that are off the map? 17 THE WITNESS: So you're asking can this deer 18 fencing be put like this? 19 THE PUBLIC: Correct. Right. 20 THE WITNESS: I can't answer that. I mean, 21 I can answer that but it's not my application. 22 THE PUBLIC: Right. You made the 23 recommendation where this deer fencing could be, 24 correct? 25 THE WITNESS: Generally. I did not get into
170 1 Mr. Afran. 2 MR. AFRAN: Thank you. 3 CHAIRMAN BAGOFF: Continue, sir. 4 THE PUBLIC: I want to thank Mr. Afran for 5 his support. I'll be taking your law class next 6 semester, no kidding. 7 CHAIRMAN BAGOFF: Botany and law. 8 THE PUBLIC: And learning how to be a 9 planning board Chair one day. Thank you, Mr. Chairman 10 Bagoff. 11 Can we go to the map where the deer fencing 12 is and the contours again. 13 So I get the idea of a sponge because that's 14 going to soak up the water and keep it from flooding, 15 but that little tiny corner up there where it says, 16 Limit Line, and you have a little arrow there, right? 17 THE WITNESS: Yes. 18 THE PUBLIC: That's water all coming 19 downhill, according to your contours there, which hits 20 those one, two, three homes. No, going exactly where 21 that limit line is. No, where those words are. Go up 22 to the corner. Right there. That water all comes down 23 there during a storm. There's no sponge effect and 24 we're saying that the growth is not good there and 25 there's not going to be -- it's going to be undisturbed.	172 1 specific design with them. I left that to the planner 2 and to the architect. I can't answer that, it's up to 3 the -- 4 THE PUBLIC: The negotiated area was between 5 you and -- 6 THE WITNESS: The general area. Again, not 7 specifically. So I can't answer your question, I guess 8 is my answer. 9 THE PUBLIC: That's a high, high concern of 10 the location of the deer fencing. I know that those are 11 the two lease areas, but there is concern if the, if the 12 areas are to be sponges and safeguards to protect the 13 properties that are off the map, correct? That's why 14 they're there. 15 THE WITNESS: Well, that's part of it. I 16 mean, that's one of the consequences I should say, yes. 17 THE PUBLIC: Right. So couldn't there be 18 other areas selected for deer fencing to help protect 19 water runoff? 20 THE WITNESS: Again, I can't answer your 21 question for this area, because it's not my specific 22 design. I can -- it's up to the planning board if they 23 want to ask for more deer fencing. 24 THE PUBLIC: Let me rephrase. Are there 25 other areas that you might suggest on the map?

173 1 CHAIRMAN BAGOFF: We're going to ask the 2 applicant to look at that area and point that out again 3 and see if there has to be an edge that's maintainable 4 beyond the area that is deer fenced, but we'll ask the 5 applicant to listen to your issues and see if they can 6 come up with a solution. 7 THE WITNESS: Have you got that, Bryan? 8 Want me to point that out to you so you can see what 9 we're talking about. It's this area right in here. So 10 he's asking, can this be triangulated that point. 11 MS. MCGOVERN: You would be just moving the 12 line a little bit? 13 THE WITNESS: Yeah. Putting another bit of 14 deer fencing. You would expand it. You would just 15 expand this and change its design. 16 MS. MCGOVERN: I guess they have to look and 17 see if it's the same amount. 18 THE WITNESS: I don't know if it could be 19 done. I don't have an answer for that. 20 MR. PLOCKER: We'll take a look at it, 21 absolutely. 22 CHAIRMAN BAGOFF: Okay. The applicant will 23 take a look at it and come back to the board. 24 THE PUBLIC: I just want to clarify that 25 the, ask the question, the tree experts that walked	175 1 MR. KLEIN: Yeah. 2 THE PUBLIC: Okay. So they're not going to 3 come up from the side or somewhere else, it's going to 4 be specifically to the tee on those roads? 5 MR. KLEIN: Like your street. The utilities 6 would be under the street. 7 THE PUBLIC: Right. 8 MR. AFRAN: Note for the record, with great 9 respect, that answers provided by a member of the board, 10 which is fine. It's not provided by the applicants 11 professional. 12 MR. KLEIN: Lee Klein, professional engineer 13 in New Jersey. Licenses are in good standing. 14 CHAIRMAN BAGOFF: We're going to wait for 15 the engineer to come up with a plan and the applicant 16 will elucidate, my guess is wherever PSE&G and the sewer 17 system starts out with, that's up to the engineer and 18 that's going to solve the problem. 19 MR. AFRAN: Chairman, I'm just pointing out 20 for the record, sometimes you hear in the record a voice 21 says. I just want it to be clear for the record -- 22 MS. MCGOVERN: We do have a transcript. 23 MR. AFRAN: I know that. Some times in a 24 transcript it's not always clear who's giving the 25 answer. I have no problem with the viewpoint expressed,
174 1 around with you, they had some kind of credentials from 2 an association and such as -- 3 CHAIRMAN BAGOFF: That's been testified to, 4 sir. Move on. 5 THE PUBLIC: Okay. I'll move on. Thank 6 you. 7 I guess my last question is the removal of 8 trees, were they included in the entrances that also 9 include storm water work, you know, sewer work, drinking 10 water work, gas, electricity and things like that, was 11 that taken into consideration? 12 CHAIRMAN BAGOFF: I'm sorry, I don't 13 understand the question. 14 THE WITNESS: Yeah, I don't understand the 15 question. 16 THE PUBLIC: So we're looking at the 17 buildings and stuff but also sewer lines and -- 18 CHAIRMAN BAGOFF: It's not going in the 19 disturbed area. 20 THE PUBLIC: Right. So the disturbed areas, 21 right, but you have to go from wherever the -- 22 electricity has to come in from other areas outside 23 those white areas to run those lines. 24 MR. KLEIN: Under the roads. 25 THE PUBLIC: Under the roads?	176 1 I just want to point out that's not a factual statement 2 from the applicant. 3 CHAIRMAN BAGOFF: Absolutely. 4 MR. AFRAN: That's all I wanted to point out 5 for the record. 6 CHAIRMAN BAGOFF: I'm the chair, let me do 7 that. Thank you. One moment. 8 Mayor McCartney. 9 MAYOR MCCARTNEY: A question was asked about 10 Exhibit C of our ordinance, those questions are answered 11 in Exhibit C of our ordinance. Those questions are 12 answered in Exhibit C of our ordinance. 13 MR. PLOCKER: Madam Mayor, I believe it's 14 the settlement agreement as an exhibit. 15 CHAIRMAN BAGOFF: Oh, there goes that word. 16 MR. PLOCKER: I want a clear record. 17 CHAIRMAN BAGOFF: We had half an hour no 18 words. 19 MR. PLOCKER: And some of Exhibit C, just to 20 be clear, some of Exhibit C is incorporated directly 21 into the ordinance, some stands on its own, which the 22 applicant must adhere to. 23 CHAIRMAN BAGOFF: Okay. The applicant will 24 be back and explain everything to us. 25 Okay. Yes, sir.

177 1 THE PUBLIC: I'm good. Thank you. 2 CHAIRMAN BAGOFF: Thank you. 3 Come on up. 4 THE PUBLIC: Rachel Klein again. Howell 5 Drive. I remember my question. 6 In the settlement ordinance, in that 7 document it mentions, it's Page 14, Paragraph 25 8 specifically talks about the deed restriction and 9 there's a line in it, maybe I -- maybe I misunderstood 10 it, it talks about to the benefit of the town. And so 11 my question is, how, if this areas going to be deed 12 restricted to the benefit of the town, how is fencing 13 off from use benefit the town, unless there's another 14 definition to that? 15 CHAIRMAN BAGOFF: Mr. Plocker. 16 MR. PLOCKER: The intent of the deed 17 restriction is to alleviate anybody's concern that there 18 could be future development on anything other than the 19 maximum of the 30 acres that was contemplated by the 20 settlement of the ordinance. 21 THE PUBLIC: Yeah, it mentions that too. 22 It's just the line about being, because there's a part 23 about the benefit of the residents, trying to open the 24 trails specifically in the western part and then it just 25 mentioned that, you know, questioning why it would be in	179 1 the barberry. But that doesn't indicate a healthy 2 forest. 3 THE PUBLIC: Thank you. 4 CHAIRMAN BAGOFF: Thank you. 5 Come up and state your name for the record, 6 please. 7 THE PUBLIC: Hi. How are you. Justin 8 Goldsmith. I just want to say I'm not opining on this 9 project in any way I just have questions for my 10 edification. 11 CHAIRMAN BAGOFF: Go right ahead, sir. 12 THE PUBLIC: So I keep hearing the word 13 offset and I keep hearing the word about storm water and 14 flooding, and I guess my first question is, how do we 15 compare impacted zones to nonimpacted zones? Based on 16 this project what would you define as something that's 17 impacted versus not impacted by this project? 18 THE WITNESS: I'm not sure I understand the 19 question. 20 CHAIRMAN BAGOFF: Can you define the word? 21 THE WITNESS: Yeah, what do you mean 22 impacted? 23 THE PUBLIC: Impacted? 24 THE WITNESS: I know what impacted means but 25 how does it relate to what I testified. I just don't
178 1 there if it's clearly not to the benefit of the town. 2 And then my other question is, when you come 3 back with the reports next time we meet, some of the 4 pictures you took with the chair, that's like not 5 officially an easement, but that's always been like a 6 naked wide area going straight from Howell Drive 7 straight to, like a fork in the road that leads off the 8 Highlands. So it always looks pretty empty of trees, so 9 if you have pictures of other areas, specifically the 10 eastern part of the ridge line and other areas of the 11 forest, that might help people understand what you mean 12 by undergrowth. 13 THE WITNESS: In answer to your question, 14 that's just a representative photo, it wasn't meant to 15 be a photo survey, but I can tell you that that is, in 16 my opinion, what the whole forest looks like. Now, I 17 did not do a photo survey of the entire property but 18 that is what it looks like. But, yes, would more photos 19 show the same thing, they would and in our walk-through 20 finding on my secondary report of 2024 we state 80 to 21 100 yards is the visibility throughout that forest. So 22 it wouldn't change where I was in the forest 23 necessarily. There might be small pockets where the 24 wetlands are -- sorry. Where the wetlands are, where 25 there are a lot of barberry growing, I can't see through	180 1 understand. 2 THE PUBLIC: I don't understand your 3 question back to me. Okay. So -- 4 THE WITNESS: Describe -- can you give me 5 more of a description. 6 THE PUBLIC: Is there -- how do you define 7 what zone areas have an environmental impact based on 8 the construction of the development of this project? 9 MS. MCGOVERN: Are you saying the word 10 impact instead of the word disturbed and undisturbed 11 area? 12 THE PUBLIC: Sure. Oh, is there an 13 environmentally disturbed area versus undisturbed area? 14 THE WITNESS: Okay. Now I understand your 15 question. Thank you. The area that is not shaded in 16 either the ugly green as it's been called correctly or 17 the dark green -- 18 THE PUBLIC: No, I asked how do you define, 19 not what you define. 20 MS. MCGOVERN: How do you define -- 21 THE WITNESS: Oh, disturbed would mean that 22 this areas going to have tree removal, it's going to 23 have construction activity, buildings, roads, utilities, 24 et cetera. 25 THE PUBLIC: Okay. How would you --

181 1 THE WITNESS: Storm collection system. 2 Sorry. 3 THE PUBLIC: How would render the situation 4 based on your word disturbed or undisturbed area in 5 terms of what is perceived as mitigating those 6 situations? What would you do in a disturbed versus an 7 undisturbed area of this project. 8 MS. MCGOVERN: For planting? 9 THE PUBLIC: For planting, for storm water 10 runoff, anything like that. 11 MS. MCGOVERN: Okay. He's only here for 12 environmental, he's only here to testify about the 13 environmental impact in the green areas. 14 THE PUBLIC: Okay. So in those areas 15 there's obviously going to be disturbed areas, correct? 16 Right. 17 THE WITNESS: Only in this area. Only in 18 the white area. 19 THE PUBLIC: Okay. We all have storm water 20 runoff in all the other facets of that, correct? Yes. 21 THE WITNESS: That's all part of the 22 disturbed, yeah. That's been testified to by experts on 23 that area. 24 THE PUBLIC: Understood. Understood 25 entirely.	183 1 THE PUBLIC: Understood. 2 So subsequent questions as a member of the 3 environmental commission, also the board, I would like 4 to ask the continuity study and the ingenuity nature of 5 the plants we are replacing and the trees we are 6 replacing as to how they relate to impacted zones as 7 they relate to storm water retention. An oak tree 8 versus a redwood returns water at different rates and 9 recharges them based on the current tree canopy 10 ordinance at different levels. So I would like to know 11 how you're incorporating those things into this 12 development plan. If I chopped down a 500 year old oak 13 tree that takes up a gallon of water a day versus a 14 sapling that takes up an ounce of water a day, how do we 15 go about doing that? That's not, I think that's a 16 legitimate question, sir. 17 CHAIRMAN BAGOFF: Legitimate question. 18 Is that anywhere in your reports? 19 THE WITNESS: No. 20 CHAIRMAN BAGOFF: Is it something you can 21 bring to the board easily? 22 THE WITNESS: I think the storm water plan 23 or the planner is where that gets addressed. 24 CHAIRMAN BAGOFF: I'm going to ask our 25 engineer and our planner, is that something in your
182 1 THE WITNESS: Right. 2 THE PUBLIC: Given that those areas will 3 obviously see flood insurance increases, most likely 4 disturbance in the cost of life, their daily activity, 5 how are we doing this injustice that compensates those 6 people for said insurance increases, flood insurance 7 increases? I mean, I guarantee to you our flood 8 insurance is going to sky rocket. How are we -- 9 CHAIRMAN BAGOFF: Sir, this is beyond his 10 testimony. He's not an insurance agent and we can't 11 determine that. 12 THE PUBLIC: Can I pose the question to the 13 zoning board. 14 CHAIRMAN BAGOFF: We're not the zoning 15 board, we're the planning board. 16 THE PUBLIC: The planning board. 17 CHAIRMAN BAGOFF: In any case, this is 18 beyond the scope of what we look at for an application. 19 It's a good question, not our purview, sir. 20 THE PUBLIC: Okay. So I would just like to 21 pose the question to the members here. 22 CHAIRMAN BAGOFF: No, no, no, no. It has 23 nothing to do with planning. This is the planning 24 board, so I want to keep this focused on the application 25 information and what we're supposed to hear, please.	184 1 purview? 2 MR HESS: No. 3 THE PUBLIC: May I ask whose purview it may 4 be in? 5 MS. MCGOVERN: It's two different subjects. 6 If I'm mistaken, Mr. Plocker, you have the area that 7 they're building where there was an engineer who 8 testified about the storm water management? 9 MR. PLOCKER: Yes, ma'am. 10 MS. MCGOVERN: So there's that one aspect. 11 And then you have the area with the forest, but we don't 12 have calculations, if that's what you're asking for. 13 Mr. DeFeo -- 14 THE PUBLIC: I'm asking -- 15 MS. MCGOVERN: -- he's not offering that 16 type of testimony. 17 THE PUBLIC: I'm not asking and if it's not, 18 Mr. DeFeo, for you, I'm asking who it is to. If we're 19 cutting down 50 redwood trees and replacing them with 50 20 saplings of oak, is that the same storm water retention? 21 MS. MCGOVERN: They're not cutting down any 22 trees in those unrestricted areas. 23 THE PUBLIC: Shrubs, vines. 24 MS. MCGOVERN: They're not disturbing 25 anything in those areas.

185 1 CHAIRMAN BAGOFF: Okay. The disturbed area 2 is, the engineer provided the storm water management 3 plan that is on record. 4 THE PUBLIC: Understood. 5 CHAIRMAN BAGOFF: That will be approved, 6 eventually approved by DEP. So that is out of our 7 purview, much higher authority that will make sure that 8 it is consistent with the law. 9 THE PUBLIC: I appreciate the consistency, I 10 do. Thank you very much. 11 CHAIRMAN BAGOFF: You're very welcome. 12 Thank you. 13 THE PUBLIC: Hi everyone. Good evening. My 14 name is Clair Benyo, 57 Mayfair Drive. B-E-N-Y-O. 15 So Mr. DeFeo, so just for my understanding, 16 you're firm was hired as an independent consultant on 17 this project, correct? 18 THE WITNESS: Yes. 19 THE PUBLIC: Are you the owner of that 20 company? 21 THE WITNESS: Yes. 22 THE PUBLIC: What other clients do you have? 23 CHAIRMAN BAGOFF: Not germane, sorry. 24 THE PUBLIC: What other industries do you 25 support?	187 1 correct. I make sure that is in compliance with 2 environmental conditions. I get consulted from, by the 3 township from time to time on environmental matters, 4 most recently on a couple of storm water matters where 5 there have been issues of forest destruction. Improper 6 forest destruction. I've done work with the township 7 consultation for bid specifications for your solid waste 8 collection. I don't know if there's anything else 9 specifically I've been retained for. 10 THE PUBLIC: Okay. 11 And when were your services retained for 12 this project specifically? 13 THE PUBLIC: There are two levels of that. 14 The initial work was in negotiating, not the ordinance, 15 negotiating for the settlement, and then that was by the 16 township and I don't have the date of my retention by 17 the planning board, which is separate. I just don't 18 know the exact date. 19 THE PUBLIC: Can you expand on your 20 involvement in negotiations that you were hired for? 21 MS. MCGOVERN: I'm sorry, I missed that. 22 THE PUBLIC: Can he expand on the services 23 that he was hired for in 2019. 24 MS. MCGOVERN: I think he already testified 25 to that, but in terms of the settlement negotiation may
186 1 CHAIRMAN BAGOFF: Can you answer that? 2 THE WITNESS: Other industries. I mean, I 3 work in the solid waste recycling. I work on 4 environmental design. I work on green building. I've 5 done energy conservation. I've done work on landscaping 6 design projects with landscape architects to try to 7 maximize regrowth. I've done work on solar fields. 8 Worked with engineers. I teach at Rutgers. I mean -- 9 THE PUBLIC: I meant specifically your firm 10 being hired for environmental consultative services. 11 THE WITNESS: All those areas I've been 12 hired. 13 THE PUBLIC: Other townships you're hired 14 by? 15 THE WITNESS: All those areas are within 16 that. I've done work, environmental work. I've done 17 different areas. Nutley, Middletown. 18 CHAIRMAN BAGOFF: Other towns are not 19 germane. We're talking about West Orange. 20 THE PUBLIC: And what other jobs has the 21 Township of West Orange hired you for? 22 THE WITNESS: I've done work for West Orange 23 on different things since 2005. I'm the environmental 24 compliance officer for the township for the recycling 25 facility on Route 10, they call it Route 10. That's	188 1 have been some -- 2 THE PUBLIC: He mentioned several times he 3 was hired to negotiate. 4 MR. AFRAN: Can we just hear what Ms. 5 McGovern said. 6 MS. MCGOVERN: In terms of the settlement 7 agreement and negotiations, I don't know the role, but 8 in terms of the services to the township, you can 9 describe it, anything that's not attorney-client 10 privilege. Go ahead. 11 THE WITNESS: I think the best answer is to 12 help develop Schedule C, I believe it's called. You 13 know, my job was to develop the environmental parameters 14 for Schedule C and try to get them included. 15 THE PUBLIC: Can you help me understand what 16 Schedule C is related to this project? 17 THE WITNESS: This is part of it, the tree 18 fencing and the tree issues, which is the predominant 19 element. 20 MS. MCGOVERN: Schedule C is called Design, 21 Terms and Conditions. 22 THE PUBLIC: Okay. 23 And so what were the scope and services that 24 you were hired for, for this project? The second part 25 of this project. The most recent hiring I should say.

189 1 THE WITNESS: My retention by the planning 2 board was to do and prepare for what you've seen 3 tonight, prepare reports on this issue. 4 THE PUBLIC: And what was the scope of 5 services? What were your deliverables? 6 CHAIRMAN BAGOFF: I'm sorry, ma'am. We've 7 gone over that through his report and through his 8 PowerPoint. 9 THE PUBLIC: So is he not able to -- 10 CHAIRMAN BAGOFF: The problem is we're 11 trying not to repeat things he already testified to. 12 THE PUBLIC: So your sole deliverable for 13 the project was this report, is that correct? 14 THE WITNESS: Two reports. 15 THE PUBLIC: Two reports. Okay. 16 And so you were hired to do an environmental 17 evaluation and so we heard a lot about the deer 18 specifically. What other environmental factors have 19 been evaluated for other animals, as far as endangered 20 species, you know, what other evaluations have been done 21 besides the size of trees and the number of deer? 22 MS. MCGOVERN: By him? 23 THE PUBLIC: By him, yes. 24 THE WITNESS: Nothing. Those issues are 25 dealt with by the DEP.	191 1 MR. AFRAN: Well, with respect, I must 2 disagree with Mr. Plocker's recitation to a degree. The 3 ordinance and settlement agreement state that Mr. DeFeo 4 is here as an environmental consultant with respect to 5 the project, not just limited, as Mr. Plocker just 6 described. And all though Mr. DeFeo was chosen, we 7 spent a great deal of time on the deer fence and related 8 issues. His actual charge or brief, so to speak, is 9 much broader. He's here as an environmental consultant 10 and he has addressed other issues beyond just the deer 11 fence. But it's not limited solely to evaluating the 12 compliance of the developer in connection with the 13 application. He's here as an environmental consultant 14 in a much broader context, and that's what the ordinance 15 says and that's what the settlement says. It is not 16 limited as Mr. Plocker said. 17 MR. PLOCKER: Well, where in the ordinance 18 does it say that, Bruce. It's not in the ordinance. 19 MR. AFRAN: The settlement agreement -- 20 MR. PLOCKER: You said the ordinance. 21 CHAIRMAN BAGOFF: One at a time. He's going 22 to hit me. 23 MR. AFRAN: The ordinance. 24 MR. PLOCKER: I want a clear record. We 25 want a clear record.
190 1 THE PUBLIC: So you counted the trees and 2 you counted the deer and you consider that a sufficient 3 environmental assessment of the situation? 4 CHAIRMAN BAGOFF: He didn't count the deer. 5 I want the record clear. 6 THE WITNESS: I observed the deer. 7 THE PUBLIC: He observed ten deer, correct? 8 He observed ten deer and made an estimate on the tree 9 count. 10 And do you think that, that is an 11 encompassing evaluation for the entire environmental 12 impact of this project? 13 MR. PLOCKER: The scope of Mr. DeFeo's 14 retention has been mischaracterized. I believe Mr. 15 Chairman, and correct me if I'm wrong, he was originally 16 retained in connection with pending litigation. The 17 case settled, the property was rezoned, we made an 18 application. Part of the things we needed to adhere to 19 was the Schedule C or Exhibit C to the settlement 20 agreement. And I believe Mr. DeFeo was retained by this 21 board to evaluate the pending site plan application that 22 we're all here many nights on and we're all taking our 23 time on to evaluate our compliance with those 24 requirements of the ordinance and the Exhibit C 25 settlement agreement.	192 1 CHAIRMAN BAGOFF: Don't put that on the 2 record. 3 I'm sorry, go ahead, Mr. Plocker, respond to 4 Mr. Afran's statement and Mr. Afran can respond. 5 MR. PLOCKER: I just wanted to know, Mr. 6 Afran, you said a couple of times, two, three times 7 tonight that either the referral and input of the 8 environmental consultant or even Mr. Defeo specifically, 9 I'm not sure which one, I don't want to put words in 10 your mouth, is set forth somewhere in the actual 11 ordinance. 12 MR. AFRAN: Yeah, the problem is 13 dialytically the ordinance adopts the settlement and the 14 settlement says, Mr. Defeo is to be the expert for, as 15 an environmental consultant on this case. So it's all 16 in that sense one in the same. He's here, I'm only 17 making the point to dispute from my clients perspective 18 Mr. Plocker's more limited description that he's here as 19 an environmental consultant, not nearly to evaluate the 20 compliance by the developer. That's all I wanted to 21 say. When I cross we'll go into more of that from our 22 perspective. 23 CHAIRMAN BAGOFF: Fair enough. Thank you. 24 Ma'am, continue. 25 THE PUBLIC: Is Mr. Plocker the legal

193 1 representation for Mr. DeFeo? 2 MS. MCGOVERN: No. 3 THE PUBLIC: So I asked a question of Mr. 4 DeFeo and Mr. Plocker chimed in, so I would like to 5 reask my question to ask Mr. DeFeo specifically. 6 CHAIRMAN BAGOFF: Go right ahead. 7 THE PUBLIC: Do you think that the 8 evaluation that you provided for your consultation 9 services encompasses sufficient environmental impact for 10 this project that of tree counts? 11 THE WITNESS: Within the scope of my 12 retention, yes. 13 THE PUBLIC: And what is your relationship 14 to the applicant? 15 THE WITNESS: I have no relationship to the 16 applicant. 17 THE PUBLIC: Has the applicant hired you for 18 any other projects or evaluations or guidance or 19 consultations? 20 THE WITNESS: I will state again, I have no 21 relationship to the applicant. That means I have not 22 done any work whatsoever with this applicant. I've 23 never heard of this applicant before. The first meeting 24 I had with them was on behalf of the town. 25 THE PUBLIC: And do you have any involvement	195 1 intended to regrow the forest with the deer fence and it 2 is, if it is successful, are there any intentions on 3 taking the fence down once that forest has been regrown? 4 THE WITNESS: As stated in testimony, it is 5 to be maintained in perpetuity. 6 THE PUBLIC: And have you done any 7 geotechnical assessments on the land in the environment? 8 THE WITNESS: I'm not sure what the question 9 is. 10 THE PUBLIC: For the land, the structural 11 stability of the slope? 12 THE WITNESS: I'm not an engineer. 13 THE PUBLIC: So who was the one -- who does 14 the geotechnical reporting of it? 15 THE WITNESS: A geotechnical specialist. 16 THE PUBLIC: And will there be a 17 geotechnical specialist that will be able have questions 18 as far as blasting, you know, digging into the land -- 19 MR. PLOCKER: This has nothing to do with 20 his testimony. 21 THE PUBLIC: -- heavy equipment on the, you 22 know, unstable slopes that have not yet been evaluated? 23 THE WITNESS: I can't answer any of those 24 questions. Outside my area. 25 MS. MCGOVERN: This is beyond the scope of
194 1 in the actual installation of the fence? 2 THE WITNESS: No. 3 THE PUBLIC: Of the deer fence? 4 THE WITNESS: I have no involvement, no 5 ownership of a fence company at all. 6 THE PUBLIC: You seem to have a lot of 7 knowledge about the cost of the fence. 8 THE WITNESS: Correct. That was part of my 9 charge by this board. 10 THE PUBLIC: Were you charged with 11 evaluating the cost of the installation? 12 THE WITNESS: To find out the feasibility of 13 deer fence installation, so I researched that cost by 14 interviewing people who have installed deer fence. 15 THE PUBLIC: And whose responsibility is it 16 to pay for the installation of the deer fencing? 17 THE WITNESS: To my knowledge the applicant. 18 THE PUBLIC: Okay. 19 And do you have any business involvement or 20 investment in any fencing company or -- 21 THE WITNESS: Look, I'm sorry, no. 22 CHAIRMAN BAGOFF: To broad. Way to broad. 23 Sorry. 24 THE PUBLIC: And so then I'll just continue 25 with one other question. If the project as it is	196 1 his expertise. 2 THE PUBLIC: I'm asking the board. 3 MS. MCGOVERN: We're asking this witness 4 questions right now. 5 THE PUBLIC: Thank you very much. 6 CHAIRMAN BAGOFF: Last question this evening 7 then we have Mr. Afran. 8 Go right ahead, ma'am. 9 THE PUBLIC: Deborah Butensky, 10 B-U-T-E-N-S-K-Y. 11 Hello Mr. DeFeo and thank you to the board. 12 THE WITNESS: Hello. 13 THE PUBLIC: So my question as the 14 environmental expert is you were the one who constructed 15 the deer fence concept which gives the builder a 16 tremendous amount of credit for trees that already exist 17 on those locations, correct? 18 THE WITNESS: As I've testified, yes. 19 THE PUBLIC: So what evidence do you have 20 that this is the optimum way to protect the forest as 21 opposed to removing the barberry without deer fencing 22 which would not give this builder so much credit? 23 MR. PLOCKER: I'm going to object. This 24 formula was in the ordinance. We submitted a plan, we 25 had to follow the ordinance. This board has to follow

197 1 the ordinance. Mr. DeFeo didn't testify he was the 2 towns consultant in connection with the settlement. But 3 any -- answering that question has no bearing on why we 4 are here and a lot of people wasted a lot of hours over 5 many days. 6 THE PUBLIC: I don't consider it a waste. 7 CHAIRMAN BAGOFF: Ma'am, ask the question 8 again, please. I want to hear it again. 9 THE PUBLIC: Well, the question is, I didn't 10 hear any scientific evidence based on the testimony that 11 deer fencing is the proper and only way to rehabilitate 12 the forest. 13 CHAIRMAN BAGOFF: Mr. DeFeo testified about 14 a couple of ways to do it and as an expert he said this 15 is the most reasonable way to do it. 16 THE PUBLIC: That's an opinion that's not 17 scientific. 18 CHAIRMAN BAGOFF: That's right. That's 19 exactly right. Ma'am, you're exactly right. He's our 20 expert, it's his opinion. Short of culling the deer 21 this was what he feels is the best way, that's what was 22 presented to the board. I agree with you. 23 THE PUBLIC: Correct. But he's not a 24 forester either, by his own admission. 25 CHAIRMAN BAGOFF: He's hired -- his company	199 1 The second part is, it would not do much 2 because it would come back very quickly since barberry 3 probably exist on most of the surrounding properties in 4 that area. Actually three parts. 5 Third part is, it doesn't stop the deer from 6 over browsing the area. So it wouldn't, removing the 7 barberry, I'd love to see it removed because I don't 8 like the plant, but it's not going to do much to 9 regenerate the forest. It'll do very little, if 10 anything. 11 THE PUBLIC: I just want to review, how long 12 do you, when you have a regeneration, X amount of years 13 are undergrowth and what is that amount? 14 THE WITNESS: As I testified before, I can't 15 give you absolute answers, but the slides I've shown you 16 and the studies I've read say that within nine years or 17 so you will not be able to tell that this was the same 18 forest. Now, as was asked earlier, I forget who asked 19 me the question at this point, what happened if weather 20 and climate and everything else changed. That changes 21 everything. All those numbers change. Everything 22 depends on the weather, the climate and everything else 23 that happens. But I would say, based on the studies 24 that have been done, within nine years or so it should 25 be pretty well growing in there.
198 1 has hired, which was his testimony, foresters/arborist's 2 that have presented a report to him that he's going to 3 make available their information that will be published 4 on the website. 5 THE PUBLIC: Do you have the studies -- 6 well, let's say I would request that you present the 7 studies from the Duke Estate that actually corroborate 8 the plan that you came up with to have deer fencing. Do 9 you have studies that prove that? 10 THE WITNESS: I believe you asked me to 11 provide you with that. 12 CHAIRMAN BAGOFF: Ma'am, we've asked for 13 that already. Duke Estate, and he will provide that. 14 It will be on our website. 15 THE PUBLIC: Does it exist? 16 THE WITNESS: Yes. 17 CHAIRMAN BAGOFF: It's a good question and 18 it will be provided. 19 THE PUBLIC: Because if we -- if you would 20 just remove the barberry how would that have effected 21 the forest? 22 THE WITNESS: There are two answers to your 23 questions -- two parts. First, a lot of the barberry's 24 in the wetland area and therefore can't be disturbed. 25 Can't go in there without getting DEP permission.	200 1 CHAIRMAN BAGOFF: Ma'am, I want to thank you 2 for your questions. The hours struck. 3 I would like to thank all the members of the 4 public and all the members on Zoom for excellent 5 questions. 6 Mr. Afran, the question we have for you is, 7 are you going to have experts, and if so, how many do 8 you plan on having for us so we can have some 9 management? 10 MR. AFRAN: Yes, thank you. I assume that 11 means Mr. Plocker's case is finished at this point? 12 MR. PLOCKER: No, not at all. 13 MR. AFRAN: Okay. So the next -- that's why 14 I was asking. I have cross examination of Mr. DeFeo, as 15 I mentioned, probably two hours. At that point I assume 16 Mr. Plocker will go on with other witnesses. How we 17 working that, because it depends on when I bring 18 witnesses. In other words, if the applicant hasn't 19 finished his case -- 20 CHAIRMAN BAGOFF: We now have another 21 meeting, special meeting on November 13. 22 Mr. Plocker, are you providing a planner or 23 anybody else? 24 MR. PLOCKER: We have a planner, you know, 25 and we'll likely have a couple of others witnesses that

1 we're working on.

2 CHAIRMAN BAGOFF: Okay. First thing will be
3 cross examination of Mr. DeFeo, see where that goes and
4 we'll go from there.

5 MR. AFRAN: So I assume, I'm not trying to
6 -- it doesn't matter too much to me, I want to
7 understand. I assume the applicant, assuming there's
8 time left in the meeting after Mr. DeFeo's finished,
9 would move on with his next witness, is that correct?
10 On November 13.

11 MR. PLOCKER: All depends on timing, yes.

12 MR. AFRAN: Yeah, assuming time is left.

13 So I most likely -- I will not bring a
14 witness until next meeting, December 13. December 11,
15 sorry.

16 CHAIRMAN BAGOFF: Okay. November 13.

17 MR. AFRAN: No, no. The next meetings
18 November 13.

19 CHAIRMAN BAGOFF: Correct.

20 MR. AFRAN: It appears that I will cross Mr.
21 DeFeo, and if there's time Mr. Plocker will call more
22 witnesses. So I won't bring a witness until the meeting
23 after that.

24 CHAIRMAN BAGOFF: Okay.

25 MR. KLEIN: Do we know that date?

1 MS. MCGOVERN: Well, I sent out --

2 MR. AFRAN: December 11 works for two of our
3 experts. So to answer your question Mr. Bagoff, we will
4 have an environmental expert, a planner, a storm water
5 management expert and perhaps more. But we won't bring
6 any expert until the meeting after November 13.

7 CHAIRMAN BAGOFF: Perfect.

8 Thank you very much.

9 MR. PLOCKER: Just so we complete, I
10 appreciate it, Mr. Chairman, announcing the November 13
11 date. We can just confirm we do not need to provide
12 notice.

13 CHAIRMAN BAGOFF: No need to do any further
14 notice. Okay.

15 The next special meeting of the planning
16 board is November 13, 6:30 PM in council chambers in
17 person. We're going to carry this application, no
18 further notice is required.

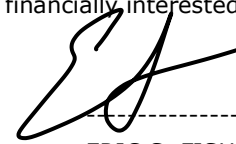
19 The next regular meeting of the planning
20 board will be November 6, 2024, via Zoom.

21 (Hearing concludes at 11:05 PM.)
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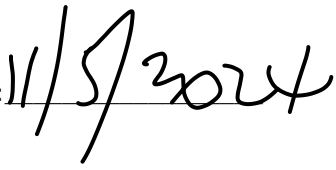
1 C E R T I F I C A T E

2 I, ERIC S. FISHMAN, a Shorthand Reporter
3 and Notary Public of the State of New Jersey do hereby
4 certify that the foregoing is a true and accurate
5 transcript of the testimony as taken stenographically by
6 and before me at the time, place and on the date
7 hereinbefore set forth, to the best of my ability.

8 I DO FURTHER CERTIFY that I am neither a
9 relative nor employee nor attorney nor counsel of any of
10 the parties to the action; and that I am neither a
11 relative nor employee of such attorney or counsel; and
12 that I am not financially interested in the action.
13
14

15 

16 ERIC S. FISHMAN, S.R.

17 Dated: 
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