

COUNTY OF HUDSON  
STATE OF NEW JERSEY

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In Re: APPLE VIEW  
7009-7101 RIVER ROAD  
NORTH BERGEN, NEW JERSEY 07047  
CASE NO. 4-10

Applicant.

-----x

September 20, 2012  
7:06 p.m.

B E F O R E:

THE NORTH BERGEN PLANNING BOARD

PRESENT:

HARRY MAYO, III, Chairman  
GEORGE AHTO, JR., Vice Chairman  
ROBERT BASELICE, Member  
PATRICIA BARTOLI, Member  
SEBASTIAN ARNONE, Member  
MANUEL FERNANDEZ, Alternate Member  
REHAB AWADALLAH, Alternate Member

GITTLEMAN, MUHLSTOCK & CHEWCASKIE, ESQS.  
Attorneys for the Planning Board  
BY: Steven Muhlstock, Esq.

Geraldine Baker, Board Clerk  
Grace Lynch, P.P., Board Planner  
Derek McGrath, P.E., Board Engineer

Reported by:  
CELESTE A. GALBO, CCR, RPR, RMR

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1 THE CHAIRMAN: Pursuant to the Open  
2 Public Meetings Act, please be advised that  
3 notice of this meeting was faxed to the *Journal*  
4 *Dispatch* and *Bergen Record* on September 4, 2012  
5 advising that the North Bergen Planning Board  
6 will hold a special meeting on September 20, 2012  
7 at 7 p.m. in the chambers of the municipal  
8 building located at 4233 Kennedy Boulevard, North  
9 Bergen, New Jersey 07047.

10 Applicants, attorneys board members,  
11 and were mailed notices on that day, and a copy  
12 of this notice was posted on the bulletin board  
13 in the lobby of the municipal building for public  
14 inspection.

15 Okay, continuation of Case 4-10,  
16 Appleview, LLC. Mr. Lamb, I think you were up.

17 MR. LAMB: Good evening, Mr.  
18 Chairman. I have no letters to report. I have  
19 no issues address. I think we can just go right  
20 into the completion of the examination of our  
21 witness.

22 THE CHAIRMAN: My mail was so much  
23 lighter today.

24 MR. LAMB: Mr. Alampi.

25 MR. ALAMPI: I kept checking my

1 e-mails. I was disappointed.

2 JILL HARTMANN, having been duly sworn by the  
3 Notary Public, was examined and testified as  
4 follows:

5 DEREK McGRATH, having been duly sworn by the  
6 Notary Public, was examined and testified as  
7 follows:

8 ROBERT CUNNIFF, having been duly sworn by the  
9 Notary Public, was examined and testified as  
10 follows:

11 MR. MUHLSTOCK: Mr. Lamb, before you  
12 continue your direct, let me just note for the  
13 record, Mr. Chairman, that there were four  
14 members absent at the July meeting, that's the  
15 July 12 meeting, yourself, Ms. Bartoli, Mr.  
16 Locricchio, and who else, sorry, and Mr. Somick.  
17 And I've ascertained, of course, by asking you,  
18 you did read the transcript of July 12 and Ms.  
19 Bartoli has read the transcript of July 12. I  
20 will bring certifications at the next meeting so  
21 you can sign those. The only -- and the only  
22 member who was not at the August 28 meeting was  
23 Mr. Somick. So other than those that I just  
24 placed on the record, everyone is up to date and  
25 everyone has read all the transcripts at this

1 point. Thank you.

2 MR. LAMB: Thank you.

3 DIRECT EXAMINATION

4 BY MR. LAMB:

5 Q. Mr. Cuniff, you've reviewed -- and,  
6 again, we left off with the, the June 1st, 2012  
7 Johnson Soils report that you were making  
8 comments on. Was there anything in there that  
9 indicated that there was a review for landslides  
10 or earthquakes that was focused in that report?

11 A. I don't recall. I think I brought  
12 the report up here with me to look through it.  
13 It appeared to be geared towards foundation  
14 design for the building as opposed to slope  
15 stability, even though that's the name of the  
16 report. They talk about the existing slope  
17 condition, rock outcrop, subsurface conditions in  
18 soil and underlying rock and slope stabilization  
19 during construction which includes rock fault  
20 protection, existing rock retaining walls and  
21 soil stabilization some of which I --

22 Q. Go ahead.

23 A. -- don't agree with.

24 Q. Which portions don't you agree with  
25 on this soil stabilization issues that you just

1 referred to?

2 A. Well, specifically on the soil  
3 stabilization they're talking about, excavating  
4 into the toe of the slope to -- so that the flat  
5 area could then handle the full footprint of the  
6 building. And to do that they would have to  
7 create -- they'd have to dig into the toe of the  
8 slope and then the resulting cut, if you will,  
9 which would go from the area excavated up to the  
10 natural slope is a one-to-one ratio, one foot of  
11 horizontal distance per every one foot of  
12 vertical rise which is a 45 degree slope. It's  
13 halfway between vertical and horizontal and  
14 that's actually steeper than the existing natural  
15 slope.

16 Q. So is it fair to say that the  
17 excavation into the toe of the slope makes the  
18 slope steeper than the current existing  
19 condition?

20 A. Yes.

21 Q. What does that do as far as an  
22 effect on the risks of a landslide or surficial  
23 slide?

24 A. It increases the risk of a soil  
25 slope failure.

1           Q.     Okay.  And what happens if the  
2     building is pulled away from the toe of the slope  
3     and there is less excavation into the toe of the  
4     slope?

5           A.     That would mitigate the risk.  It  
6     would be -- there wouldn't be as high an increase  
7     in risk.  If they do no excavation, then there  
8     would be no increased risk associated with slope  
9     stability other than, you know, vibrations from  
10    construction.  They wouldn't be weakening the  
11    actual slope.  The slope stability issue when  
12    they dig into the slope they do two things, they  
13    provide a -- they create a new cut wall, if you  
14    will, the bottom of their excavation which is  
15    steeper than the existing natural slope, but  
16    they've also removed a mass of soil which is  
17    acting as effectively a wall.  It's not really a  
18    wall, it's just a pile of soil at the foot of the  
19    slope.  So they're removing some of the -- some  
20    of nature's protection, I guess, making it --  
21    making the uphill soil more susceptible to the  
22    forces of gravity trying to drag it down the  
23    hillside.

24          Q.     Now, I believe you testified that  
25    the subject property in your opinion had a weak



1 slope. Can you describe or explain why you  
2 believe that the slope is weak?

3 MR. ALAMPI: I'll object. I don't  
4 recall any testimony using the phraseology weak  
5 slope.

6 MR. LAMB: Okay, I'm going to  
7 rephrase the question and move along.

8 Q. Can you categorize the condition of  
9 the slope in your opinion based upon what you  
10 have reviewed?

11 A. Yeah. I'm afraid I disagree with  
12 some of the comments in this report that we're  
13 discussing that the Johnson report in that I --

14 Q. And that's from -- that's from  
15 geologically speaking?

16 A. Yes, from my --

17 Q. Okay.

18 A. -- field inspection.

19 Q. Okay.

20 A. The -- there's repeated references  
21 to the slope, the existing slope, the natural  
22 slope being stable and not exhibiting erosion. I  
23 disagree with those two statements.

24 Q. Right. And we went over that I  
25 think a little last time.

1 A. Yes.

2 Q. And I don't want to repeat the  
3 testimony.

4 What are factors that adversely  
5 affect the slope as it currently exists with the  
6 proposed building? What are the factors that are  
7 relevant for the board's review on analyzing the  
8 risk of this?

9 A. Well, I don't know -- I have to  
10 maybe rehash some of what I talked about at the  
11 last meeting if that's okay.

12 Q. That's --

13 A. I saw there was ponding with algae  
14 in it indicating a very high water table, higher  
15 than I personally would have expected on such a  
16 steeply graded slope indicating the soils  
17 don't -- the soils, not the site, not the  
18 topography, but the physical makeup of the soils  
19 don't drain well vertically, so they're  
20 saturated. They're very wet. They're very wet  
21 up to shallow levels. In other words, there's  
22 water not very deep below the surface of the  
23 soil. That's riskier and more likely to slump  
24 and fail than would dry compact soil.

25 The soil is not compact. When I was

1 walking up the slope I was -- my footprints alone  
2 were causing divots in some spots because the  
3 soil was very light, probably recently deposited  
4 by erosion and very soft and not compact.

5 Q. What about the steepness of the  
6 slope, is that a factor when analyzing the -- how  
7 stable the slope is?

8 A. Absolutely.

9 Q. Okay. Can you expand upon that?

10 A. When you're talking about granular  
11 material or a mix of granular material of  
12 different sizes, there is an inherent factor in  
13 the grain size, if you will, and this report  
14 discusses it, it's called --

15 Q. This report --

16 A. This is the Johnson 2000 -- June  
17 2012 report --

18 Q. Okay.

19 A. -- referencing angle of repose. For  
20 instance, you could pile up if you were to dump a  
21 dump truck of blocky, you know, let's say Belgian  
22 block which is very angular and rectangular, if  
23 you would to dump that on the ground from a dump  
24 truck, the slope would be steeper on that than if  
25 you were to dump a pile of sand. Sand is more

1 rounded, more regularly shaped and the slope --  
2 the height of that, of the sand pile would be  
3 lower and the sides would be more horizontal than  
4 the Belgium block.

5 So every material or every mix of  
6 material has its own angle of repose which in the  
7 Johnson report -- I'm looking for the  
8 reference -- but I believe it's about 30 degrees  
9 for the material on this site is what she  
10 referenced.

11 Q. Okay. I'll refer you to page 8.

12 A. Yes, she gave a range of 28 degrees  
13 to 34 degrees. So that's inherent in the mixture  
14 of materials that they have on the site. So if  
15 you try to make something out of this material  
16 steeper than that, it's going to erode or fail  
17 eventually.

18 Q. Okay. Now, she also refers to  
19 thereafter on the following page, and it says the  
20 recommended excavated slope for the area behind  
21 the building at a maximum of 1V:1H and stabilize  
22 with Geoweb. Can you comment on that?

23 A. I had actually already referenced  
24 that, one vertical height of foot per one  
25 horizontal foot and that is 45 degrees, halfway

1       between vertical and horizontal. 45 is greater  
2       than 34 degrees which is the top of her angle of  
3       repose.

4               Q.       Okay. And what does that mean? Did  
5       she -- on one page she has 28 to 34 degrees, on  
6       the next page she has 45 degrees. What does that  
7       mean for the board?

8               A.       She's proposing grading, grading the  
9       slope during or after excavation that is steeper  
10      than the material can naturally handle. Now,  
11      immediately after that she says stabilize it with  
12      Geoweb or similar approved product. To a certain  
13      degree that will help but it does not stop the  
14      forces of gravity. It mitigates the forces of  
15      erosion by water and wind but it doesn't stop the  
16      force of gravity. So if over a period of time  
17      the slope will try to equalize to an  
18      approximately 30 degree slope.

19              Q.       Now, you did review the transcripts  
20      that were in attendance when Mr. Rodriguez  
21      testified?

22              A.       Yes.

23              Q.       Okay. All the transcripts and all  
24      the testimony that he gave to the board?

25              A.       Yes.

1           Q.     You recall Mr. Rodriguez making a  
2           reference that he has no concern -- that he was  
3           not concerned about any deep seated landslides in  
4           his testimony?

5           A.     Yes, I do recall that.   Yes.

6           Q.     Do you have any comments on that?

7           A.     Yes.   And he -- I don't think he's  
8           the only one.   I think during Ms. Mahle-Greco's  
9           testimony a couple hearings ago she also said  
10          there was only surficial concerns, no deep seated  
11          concerns.

12          Q.     You --

13          A.     I --

14          Q.     Go ahead.

15          A.     My comment on that is how are people  
16          defining deep seated versus surficial.   Of all  
17          the documents and testimony that I've reviewed  
18          for this case, there's only one document that  
19          quantifies those values.   And I'm looking at the  
20          Palisades Slope Stability Study by -- for Hudson  
21          County by PMK Group which is originally September  
22          3, 2008 and it was revised on February 3, 2009.  
23          And I think this was submitted as Exhibit G-39.  
24          That's what I have written on my front page.

25                 MR. ALAMPI:   Yes.   Yes.   Yes, John.

1 Q. Now, with respect to G-39, is there  
2 a reference in there to deep seated?

3 A. There is no definition for the term  
4 deep seated in this report.

5 Q. But there is a reference to deep  
6 seated in the report, in the conclusion?

7 A. If you go back to the conclusions,  
8 yes. I mean, what I was about to say is there is  
9 a reference, a definition for surficial sliding  
10 in the report. Let me go back to the  
11 conclusions.

12 Yeah, one of -- jumps out at me is  
13 conclusion No. 2 on page 33 talks about deep  
14 seated landslides. I remember when I reviewed  
15 this I looked back through the report for a  
16 definition of deep seated. There isn't one, but  
17 they do define a global failure.

18 MR. ALAMPI: What page is that?

19 THE WITNESS: The reference in  
20 conclusion No. 2 on page 33, No. 2, conclusion  
21 No. 2, the first sentence reads: "The slopes  
22 along the study area appear to be relatively  
23 stable against deep seated landslides."

24 Q. Now, can you describe to the board  
25 in at least in that report that Mr. Rodriguez was

1 referring to, do you agree with the comments on  
2 deep seated landslides in general? Is that --

3 A. Within the context of this county  
4 report?

5 Q. Yes.

6 A. It does not seem overly concerned  
7 with -- there isn't -- it doesn't assign a high  
8 risk value to deep seated landslides, however, it  
9 does, the next sentence -- I just read the first  
10 sentence in Item No. 2. The next sentence says  
11 "That although unlikely, the potential will  
12 always exist for bedrock failure during a seismic  
13 events resulting from atypical fracture  
14 patterns." I think that's more likely a list of  
15 examples.

16 So there is always some kind of a  
17 threat there, perhaps unlikely, of a bedrock  
18 failure. So conclusion No. 2 is clear to me it's  
19 equating a deep seated landslide with a bedrock  
20 failure, not a soil slope failure and that's an  
21 important distinction.

22 Q. Okay. Can you refer to the report  
23 where it talks about surficial slides?

24 A. Yes, that definition is up towards  
25 the front of the report on page 10, there's a



1 little table under Section 9.1 which is called  
2 Potential Modes of Failure. Surficial slide is  
3 defined as "typically applied to soils and broken  
4 rock in which the upper one to six feet plus or  
5 minus of soil and/or rock slides as a unit along  
6 a slip surface."

7 Q. Okay. And with respect to risks  
8 from the proposed project, if I have one risk  
9 that is the deep seated slides and one risk  
10 that's the surficial slides, what is your opinion  
11 with respect to the greater risk of those two  
12 potential risks?

13 A. Most of the work -- most of the  
14 excavation into the toe of slope and for the  
15 footprint of the building will be exclusively in  
16 soil. The report does -- the Johnson report as  
17 well as the Bertin report does say that some  
18 rock, a minor amount, will have to be excavated.  
19 But the majority of the excavation is in loose  
20 soil or just let's say soil on the slope and  
21 therefore a surficial slide affecting just soil  
22 in my opinion poses the greater risk on this  
23 site.

24 Q. Okay. And when Mr. Rodriguez was  
25 testifying about deep seated slides and risks, do

1 you recall any testimony from him about surficial  
2 slides?

3 A. Yes, I recall, I recall the  
4 Rodriguez testimony which I read and I recall  
5 Ms. Mahle-Greco which I was here for saying there  
6 is no risk for deep seated slides, there is only  
7 a risk for surficial slides. Now, the importance  
8 of that is I think that some people may have  
9 reviewed the county report and not fully  
10 processed the county's definition of surficial  
11 which is up to six feet deep. My concern is that  
12 if you have a soil slide on that site that is up  
13 to six feet deep, you could easily uncover the  
14 pipeline which has been reported to be buried  
15 anywhere between three and 10 feet below the  
16 surface.

17 Q. And where is that -- do you recall  
18 Mr. Bertin? Did you review both of Mr. Bertin's  
19 reports?

20 A. Yes.

21 Q. His March of 2011 report and his  
22 subsequent report last revised March 30, 2012?

23 A. Yes.

24 Q. Okay. And what does that provide as  
25 the depth of the pipe?

1           A.       Between three and 10 feet at  
2           different points across the property.

3           Q.       And in both of those reports that  
4           was, that was -- remember that they changed --  
5           they added additional information that changed in  
6           the second report. Is that in both reports?

7           A.       The older and the newer?

8           Q.       Yes.

9           A.       Yes. And it's mentioned that range,  
10          three to 10 foot depth of burial is mentioned I  
11          think three times in the most recent report.

12          Q.       So how does a pipe being at a depth  
13          of three to 10 feet as indicated in Mr. Bertin's  
14          report compare to a potential risk for surficial  
15          slides of between one foot and six feet?

16          A.       Well, it's a three-foot diameter  
17          pipe. If it's only covered by three feet of  
18          material you have a six-foot slide, you've  
19          completely uncovered the pipe all the way down to  
20          the bottom of the pipe. You run the potential  
21          for the backfill that's under -- well, not  
22          necessarily under but alongside and over the pipe  
23          to also slide down completely, 360 degrees,  
24          exposing the pipeline.

25                   Now, that's bad enough but another

1        thing that people seem to be forgetting is that  
2        the pipe goes up approaching -- you know, it's  
3        going up the hill, let's say, close to 45  
4        degrees. All the construction on this property  
5        and all the excavation that is proposed is below  
6        the elevation of the pipeline where it crosses  
7        the hill up on top of the hill. It's not  
8        necessarily below the elevation. The foundation  
9        is below the elevation of the pipeline, the piles  
10       go below the elevation of the pipeline where it  
11       crosses the flat portion, the eastern portion of  
12       the property, but 90 percent of the -- I'd have  
13       to look at a map but a large percentage of the  
14       pipeline is above the elevation where they will  
15       be digging into the toe of the slope.

16                Q.        Now, there is -- can you also  
17        comment on excavating the toe of the slope and  
18        how that affects lateral support of the --  
19        that -- the pipe above the toe of the slope?

20                A.        Well, when -- if you're digging into  
21        the slope and you take a bucket with, if you  
22        will, an excavator or backhoe and you're starting  
23        to dig your excavation and you have the  
24        misfortune to have a failure up slope from there,  
25        everything does not necessarily slide down the

1 mountain of just the width of the bucket. You've  
2 excavated maybe three feet at the bottom, an  
3 excavation of three foot right into the slope.  
4 If the slope fails, it can propagate outwards as  
5 well as upwards. It will propagate upwards but  
6 it can certainly spread out laterally. So if  
7 you're digging here off to the right up the  
8 slope, you can move soil away from where it's  
9 resting which could weaken the lateral support of  
10 the pipeline up the slope even though you're  
11 digging horizontally a couple hundred feet away  
12 from the pipe.

13 Q. Okay. Let's take, let's take an  
14 excavation into the toe of the slope on the  
15 southerly side of the property.

16 A. The side furthest away from the  
17 pipeline?

18 Q. The side closest to the Galaxy.

19 A. Okay.

20 Q. If there is an excavation in the toe  
21 of the slope, that's the steepest area of the  
22 site? Well, one of the steep areas of the site?

23 A. At the toe of the slope? The bottom  
24 of the hill, the southern side is a little bit  
25 steeper than the northern side.

1 Q. Right. Right. Okay.

2 A. Yes.

3 Q. So if -- so the point is if they dig  
4 there, is there a failure from top to bottom, is  
5 that more likely or can the failure go laterally?

6 A. It can go laterally.

7 Q. Okay. Now, even though, even though  
8 the southerly side is a couple hundred feet away  
9 from the northerly side where the pipe is, can  
10 that still affect the lateral, the lateral  
11 support for that pipe on the northerly side?

12 A. Well, I'll say that it could. I  
13 can't give you a probability because there were  
14 no -- you know, there were no borings done far  
15 enough up the slope. I don't know what the soil  
16 profile looks like. I can only imagine that's  
17 it's a wedge of soil that eventually peers out to  
18 a zero thickness of soil just below where the  
19 rock face is exposed up the hill.

20 Q. Okay. Can you comment on the  
21 borings on the northerly side of the property?  
22 How many borings are on the northerly side of the  
23 property?

24 A. If you'll allow me to look at the  
25 map. Well, there's two borings that are to the

1 east that are very close to the road. They're  
2 quite far -- there's quite a distance between  
3 that and the slope, so I'll not talk about those  
4 because they don't really tell you much about  
5 the -- how the slope is, is constructed if you  
6 will. There are -- there's 11 test pits and  
7 borings. Actually there's 10 test pits -- no,  
8 nine test pits and two borings, I think, on the  
9 slope itself which is near the bottom of the  
10 slope because they couldn't get up. It was so  
11 steep they couldn't -- presumably they couldn't  
12 do more borings higher up.

13 Q. So nothing higher up? No borings  
14 higher up?

15 A. The highest investigation I see was  
16 test pits 7 and 10 which are, again, they're on a  
17 flat spot just above the toe of the slope.

18 Q. Okay. And -- on the northerly side  
19 closer to the pipeline any test borings or --

20 A. B-4 which is at -- near the very toe  
21 of the slope was put in -- I'm looking for a  
22 scale here -- probably dozens of feet from the  
23 fence line with the sewerage treatment plant.  
24 That's the closest to the north side, this B-1  
25 which is very close to road and not on the slope

1 at all.

2 Q. So can you advise the board and try  
3 and identify risks of proposed construction? Can  
4 you explain to the board what the risk is for a  
5 surficial slide based upon the proposal?

6 A. Well, as they're removing -- they've  
7 proposed to remove the toe of the slope. It's  
8 thousands of cubic yards, I forget the exact  
9 number. They have to do that to allow the  
10 building footprint to fit. They're mostly  
11 digging out soil as opposed to rock for the  
12 foundation. They do probably have to rip out  
13 some rock but most of that is soil. And as we  
14 started tonight, they will have to temporarily  
15 grade -- I don't know if it's temporary or  
16 permanent because I'm not sure what the permanent  
17 grading plan will look like here. But they have  
18 to at least temporarily grade the freshly exposed  
19 soil that they're digging into. And by doing  
20 that we've already discussed how that makes it  
21 steeper than it likes to reside at under natural  
22 conditions. So that makes it more likely to  
23 fail.

24 I'm a little worried that during the  
25 excavation process they will be generating once



1 they go a foot or so into the soil as I've seen  
2 the soil is very wet on the site, they may be  
3 generating an excessive amount of drainage of the  
4 soil will actually be weeping a lot of water.  
5 They may find that they won't be able to keep it  
6 at a 45 degree angle, that the cut will want to  
7 slump down to a lower angle on its own because  
8 the soil is so well lubricated with water from a  
9 perched water table. But while they're removing  
10 the soil the risk is that under the influence of  
11 gravity from the steep slope as well as the  
12 lubrication of water filling all the pore spaces  
13 between soil grains will allow the soil farther  
14 up on the slope to move downwards and a slope  
15 failure will occur.

16 If it's a surficial failure which is  
17 what the county report says is the more likely  
18 failure mechanism on here, that could be up to  
19 six feet -- a six-foot thick wedge of soil moving  
20 down the hillside. Whether it's just the face of  
21 the excavation won't be so bad, but there's a  
22 huge wedge of soil that goes through dozens and  
23 dozens of feet up to the cliff rock face. And if  
24 that whole wedge of soil starts to move, that  
25 would be devastating to the construction crew, to

1 anything that's built down there. It would  
2 overwhelm any kind of retaining -- temporary  
3 retaining wall that Ms. Mahle-Greco talked about  
4 they're going to put a two foot berm on top of  
5 their excavated slope with no foundation and no  
6 tying into the soil. You know, it's a six-foot  
7 wedge would overwhelm and over top a two foot  
8 berm.

9 Q. Now, I believe that the testimony of  
10 heard was that the soil on the -- the berm on the  
11 northerly portion of the property. You heard her  
12 testify about also creating an additional 10-foot  
13 buffer and putting a two-foot retaining wall  
14 behind the building to the west of the building?

15 A. I did hear her testimony but really  
16 what I'm referencing is the cross-sections that  
17 are in the back of the Johnson report, A, B and  
18 C, cross-sections A, B and C. There's -- she's  
19 showing the excavation line, the existing grade  
20 and she's got a two-foot high rock berm at the  
21 very lip of where they stop excavating on all  
22 three cross-sections.

23 Q. Okay.

24 A. So the temporary -- again, I don't  
25 know if it's temporary but the two-foot high berm

1 seems to go across the whole western edge of the  
2 limit of disturbance.

3 Q. And if there is a surficial slide of  
4 anywheres from one to six feet as defined in that  
5 county report, what does a two-foot berm, whether  
6 constructed permanently or temporarily, what  
7 would -- would that be able to hold?

8 A. No. I would think it's likely that  
9 the failure would occur very low on the slope.  
10 So the first thing to fall down the mountainside  
11 will be the two-foot berm followed by a flow of  
12 soil.

13 Q. Now, you've reviewed the site plan,  
14 the last revised site plan, have you not?

15 A. I have.

16 Q. Okay. There's a plan entitled Slope  
17 Analysis Plan, I think it's CQ5?

18 A. Yes. I don't the number but I  
19 remember the title.

20 Q. Okay. Do you recall whether that  
21 particular plan, that Slope Analysis Plan shows  
22 any drainage swale?

23 A. Yes, it does.

24 Q. Okay. Does it show the drainage  
25 swale currently proposed with the 10-foot buffer

1 and two-foot retaining wall?

2 A. I don't recall a two-foot retaining  
3 wall being on that map.

4 Q. Okay. Does it show any post grading  
5 condition?

6 A. I don't think so. One of the things  
7 that I was looking for -- looking through the  
8 packet of die -- of figures, I was looking for a  
9 final grading plan and I didn't find one. So I  
10 really don't know what the -- the features that  
11 are on that map, the one you just referenced and  
12 the features that are in the cross-section, I  
13 really don't know what's meant to be permanent  
14 and what's meant to be temporary during  
15 construction.

16 Q. Is there a retaining wall shown in  
17 that -- on those plans to the best of your  
18 knowledge, a retaining wall all along the back in  
19 connection with Ms. Mahle-Greco's recommendation  
20 that it be so installed? Is that shown on the  
21 new plans that you saw?

22 A. Along the western side?

23 Q. Yes.

24 A. I don't recall. I do remember some  
25 discussion during testimony that the building

1       itself would act as a retaining wall.

2               Q.       Is there any new contours shown to  
3       the best of your knowledge on that grading plan  
4       after the construction is done, what the proposed  
5       new contours are?

6               A.       No, that's -- I mean, that's what I  
7       was looking for was a final grading plan because  
8       I -- again, to tie in the testimony,  
9       Ms. Mahle-Greco I believe indicated that the  
10      swale was temporary during construction but it  
11      could be left in place as a permanent feature.

12              Q.       Right.

13              A.       So the fact that that option is  
14      there, tells me that there is no final grading  
15      plan as of yet because they haven't decided on  
16      whether to leave the swale in or not.

17              Q.       Okay. If the grade is steeper in  
18      the final plan, whatever that final plan is, what  
19      does that do to the risk of a surficial slope  
20      failure?

21              A.       It heightens the risk.

22              Q.       Okay. And if the slope, again, if  
23      the slope is more level, less steep, what does  
24      that do to the risk?

25              A.       It mitigates the risk or lessens it.

1           Q.     Now, you also recall that the county  
2     Slope Stability Study recommends a gabion wall on  
3     this particular property; is that correct?

4           A.     Yes.

5           Q.     And that report does not reflect any  
6     proposed construction on the property, that  
7     recommendation is on the property in its natural  
8     state?

9           A.     Correct.

10          Q.     Is there by virtue of the proposed  
11     construction, is there any added need to provide  
12     that gabion system that the county proposed?

13          A.     Since there will be or there may be  
14     construction there?

15          Q.     Correct.

16          A.     Is there an added need? I will say  
17     fairly obviously yes, they're saying that the  
18     undeveloped site -- they recommended slope, toe  
19     of slope protection for an undeveloped site.  
20     Once you develop it, you're going to have people  
21     actively using it. I would say that if they knew  
22     about it, they would probably have recommended  
23     further safety measures above and beyond what's  
24     proposed in the report currently.

25          Q.     You have, you have reviewed all the

1 Johnson and Bertin reports; is that correct?

2 A. Yes.

3 Q. What is the focus of all of those  
4 reports with respect to the proposed building?

5 A. Well, despite what the reports are  
6 entitled, I would say the focus is to establish a  
7 foundation for the building. They are not very  
8 comprehensive when it comes to slope stability  
9 uphill from the proposed structure or outside the  
10 limit of disturbance.

11 Q. Okay. Do you believe there are  
12 geographical hazards on this site that can be  
13 affected by the proposed construction?

14 A. Yes.

15 Q. Okay. Can you briefly summarize  
16 that?

17 A. Well, excavation into the toe of the  
18 slope will remove support at the base of the soil  
19 slope making soil slides or soil slope failure  
20 more likely. That's the obvious one.

21 Now, to make a connection between a  
22 soil slope failure and the proximity of the gas  
23 pipeline is another one. If you have a soil  
24 slope failure that's up to six feet deep that  
25 propagates wherever it starts, if it propagates

1 over to the pipeline and then propagates up the  
2 hill where the pipeline is very much higher,  
3 that's a very large risk.

4 Q. Based upon your review of the  
5 Transco witnesses' testimonies do you believe  
6 that Transco has adequately reviewed the  
7 surficial slope risk?

8 A. I'll go back to a statement I made  
9 when we first started talking about the county  
10 report for slope stability by PMK. I think most  
11 people that have read this report have  
12 misunderstood the term that they use in here for  
13 surficial slide or surficial stability. I think  
14 most of the testimony that I've read and heard  
15 live I think those people -- and, again, no one  
16 has quantified it in terms of a depth below  
17 surface, they just refer to it as surficial risks  
18 and they're minimizing it. They're -- I think in  
19 their heads they're thinking on the order of  
20 inches or a foot, but if they're using that  
21 reference as it is intended to be used in the  
22 county report, they've sort of missed the  
23 definition page and they're rather dramatically  
24 underestimating the risk. Because a six-foot  
25 slope -- a six-foot thick slope failure on this



1 site almost anywhere, whether it's on the north  
2 side, that would be really bad, but on the south  
3 side could also affect the pipeline in a very  
4 dramatic and disastrous way.

5 So when they use the term surficial,  
6 the only definition for surficial that I've heard  
7 is up to six feet deep. So if they're thinking  
8 something else, they should say it, but until  
9 they do, I think they're misinterpreting the term  
10 surficial slide.

11 Q. Now, you've seen the pictures  
12 attached to the Johnson Soil report and the  
13 Bertin reports, you've seen the various pictures?

14 A. Yes.

15 Q. And of some those pictures have the  
16 Geoweb what I called exposed on the picture. Can  
17 you comment on that?

18 A. Yes. Geoweb and other geotech  
19 styles that are install in that manner are meant  
20 to protect the underlying soil from erosion.  
21 Most of them are not -- they're like a plastic or  
22 a fabric and they can be photo-sensitive. So  
23 they're not really meant to be exposed to  
24 sunlight. And the photos indicate to me that at  
25 first I thought there were two options; either

1 that Geoweb was installed improperly, in other  
2 words, not buried deeply enough, or it was  
3 subsequently eroded. Based on the presence of  
4 some vegetation mixed in, I know the pictures  
5 were taken in the off season when the grass was  
6 dead and all that, but it strikes me that the  
7 photos in the report show erosion of the topsoil  
8 that was put on top of the Geoweb material  
9 because there's, there's ribbons of that web-like  
10 material that appear to be at least in sticking  
11 up an inch above the soil. You really shouldn't  
12 see any of it. It should be completely buried.  
13 And those pockets were never meant to host the  
14 roots of whatever grass or seeds are planted on  
15 top of it.

16 The fact that the web material is  
17 exposed is not a good thing. It indicates  
18 erosion. It's also exposing the material to  
19 weathering conditions that it was not meant to be  
20 exposed to.

21 Q. Now, you said you reviewed the  
22 transcript that Mr. Rodriguez testified and I  
23 believe he testified on April 3, 2011. And page  
24 44 I'm going to quote what the testimony was.

25 MR. ALAMPI: 2011? '12? Rodriguez?

1 MR. LAMB: I'm sorry, 2012.

2 Q. And I'm going to quote on page 44,  
3 "On this project, on this property provided they  
4 do not dig below the elevation of the pipeline  
5 and remove lateral support, we do not object to  
6 the project."

7 Do you have a comment on that  
8 statement by Mr. Rodriguez?

9 A. Yes, a couple comments. My first  
10 comment is that he is probably focusing on the  
11 area where the construction footprint is going to  
12 take place which is mostly in the flat area. And  
13 I would agree that the precautions that they're  
14 taking for construction of the foundation are  
15 probably very good. But my second comment is  
16 that everywhere they're digging on the site --  
17 everywhere they're proposing to dig on the site  
18 is well below the elevation of the pipeline as it  
19 goes up the hill and I don't think people have  
20 looked at the site as a whole and they have not  
21 considered that they have a pipeline going up a  
22 very steep slope that they are digging into the  
23 base of. I think a lot of people are making  
24 commentary about where it's flat and not  
25 considering that a slide could occur, propagate

1       upwards on the slope, expose the pipeline high  
2       above where the construction and excavation is  
3       taking place.

4               Q.       Now, you're also aware that there's  
5       a sewer easement that actually is on the upper  
6       portion of the slope and actually crosses the  
7       Transco pipeline? I'm not talking about what has  
8       been called in the hearings the suspect sewer  
9       easement, I'm talking about the actual sewer  
10      line. Are you familiar with that on the plans?

11             A.       I've seen it on the plans.

12             Q.       Okay. What can a utility line such  
13      as that have -- be affected by water? How does  
14      water affect a utility line and how it was  
15      constructed?

16             A.       Well, in a couple ways. It's -- I  
17      don't know how those thick -- how the particular  
18      sewer line in question was laid in place when  
19      constructed. Typically backfill -- they dig a  
20      trench, they put some backfill material down to  
21      level the bottom of the excavation, they lay the  
22      pipe in, then they backfill around the pipe on  
23      top of the pipe and then if they put a cap on it  
24      or they seed the top of it or whatever, that's  
25      how it happens. Depending on the material that's

1       used as backfill it can be more porous than the  
2       surrounding soil and it can therefore act as  
3       preferential conduit for water to flow through.  
4       It's very common in the environmental side of my  
5       industry that the DEP, Department of  
6       Environmental Protection, makes you do site  
7       evaluation, makes you map out underground  
8       utilities, makes you do vapor testing. If you  
9       have, let's say, a gasoline spill on the site,  
10      you are required to see if the gasoline vapors  
11      have used backfill or sewer lines or water lines  
12      as a preferential migration pathway. In addition  
13      to that, you know, there's -- if there's water  
14      there, then there is the risk of corrosion. We  
15      all heard the last testimony about how well they  
16      protected the pipeline.

17             Q.       What does, what does, what does the  
18      potential water going down the utility pipe, what  
19      does that do to the soil?

20             A.       Depending on what --

21             Q.       Does that increase the risk? Does  
22      it decrease the risk?

23             A.       Well, as I've said, the soil -- the  
24      water in the soil in the slope, it fills the pore  
25      spaces. If the soil is saturated, that means all

1 the little, the little empty spots between the  
2 adjacent soil grains, that's pore space and if  
3 that fills up with water, it makes the soil  
4 structure weaker. It lubricates it. It actually  
5 lubricates it. And you're talking about flowing  
6 water, it can depending on the makeup, the  
7 mixture of the material, if let's say if it's  
8 very fine clay mixed with gravel, over time if  
9 the water is flowing from one end to the other it  
10 can actually wash clay out so that you're left  
11 with just the gravel because there's such a  
12 dispersant grain sizes.

13 Q. And what you have said for the sewer  
14 easement, the sewer pipe and how that was  
15 constructed, does that equally apply to the  
16 Transco gas pipeline, same issue of back -- the  
17 backfill and sand and a conduit for water, does  
18 that apply to that pipe as well?

19 A. Yes, at the last -- when the last  
20 expert was here testifying, was it Schweitzer or  
21 Rodriguez?

22 Q. Mr. Schweitzer was --

23 A. Mr. Schweitzer was the last one. He  
24 educated me, I had on all the material that I had  
25 reviewed until I heard his testimony, I did not

1 realize how they constructed the pipeline, how  
2 they backfilled the trench. He said in his  
3 testimony that typically they excavated the  
4 trench, they removed the rocks, which he didn't  
5 use the term, the term I'm used to is screening,  
6 they dump the soil into a large machine which  
7 actually has screens in it, takes out the large  
8 bits and the small bits, the sand and whatnot  
9 fall out. And they reuse the smaller parts --  
10 smaller soil particles as backfill around the  
11 pipeline. So that's using the native soil with  
12 the courser pieces being removed instead of,  
13 let's say, clean bank run sand that they would  
14 get from a quarry. So that's the first time that  
15 I heard any construction details, if you will,  
16 about the pipeline. I don't know how the sewer  
17 easement is you constructed at all. Usually it's  
18 with imported fill not in situ fill.

19 Q. But for the board's standpoint, what  
20 is the existence of pipes with a -- presume or  
21 assume that there's backfill materials and there  
22 is some conduit for water, we're not sure because  
23 you didn't inspect it, but what does that do to  
24 the stability of the slope in that general area?

25 A. Well, if it's acting as a -- if it's

1 less -- if it's more porous than the surrounding  
2 native soil it acts as a preferential pathway for  
3 water flow which means the trench that the pipe  
4 is in and the backfill is even more saturated,  
5 wetter, more lubricated than the surrounding  
6 soil. So that if there's a failure somewhere,  
7 that soil could flow just as easily, that  
8 material could flow just as easily down the hill  
9 as the natural slope.

10 I -- one point I was getting at with  
11 my clay and gravel analogy, and I think we did  
12 not mention it last month when I started  
13 testimony, was there was a reference to some  
14 depressions, I think near the pipeline, that  
15 needed to be backfilled with no other comment  
16 about the depressions. That makes me a little  
17 nervous because depressions in my opinion could  
18 be caused by one of two ways, either surficial  
19 erosion, just a water rivulet create a depression  
20 in the soil which wouldn't be so bad, but then if  
21 the fine material were washing out of the  
22 pipeline backfill, you would be creating extra  
23 pore space in the subsurface which could cause  
24 subsidence or a sinkhole. So if the depressions  
25 were the result of a sinkhole forming in the



1 backfill of a utility line, I would be extremely  
2 concerned and I'm unaware of anybody  
3 investigating what caused those depressions.

4 Q. Now, we did -- Ms. Mahle-Greco  
5 talked about her recommendation to the board to  
6 put the 10 foot buffer behind the building and I  
7 think the two foot retaining wall but she -- you  
8 I think had advised, testified a couple minutes  
9 ago, she wasn't sure whether that was going to be  
10 permanent or temporary?

11 MR. ALAMPI: I'll object. This  
12 witness said he wasn't sure if it was permanent  
13 or temporary.

14 THE CHAIRMAN: That's correct, he  
15 did.

16 MR. LAMB: And that's what she  
17 testified.

18 THE WITNESS: She testified that as  
19 well.

20 Q. Do you have a recommendation with  
21 respect to whether that should be temporary or  
22 permanent, even though you haven't looked at any  
23 plans that show that?

24 A. My recommendation would be to follow  
25 at least in spirit what the recommendations were

1 in the county Slope Stability Report which is to  
2 put a true retaining wall in near the toe of the  
3 slope, not a landscape wall but rather one that's  
4 actually got a foundation, is tied into the  
5 subsurface rather than a berm or a landscaping  
6 type non-structural wall that is put on top of  
7 the slope. The only thing that would be good for  
8 would be for stopping isolated rocks, singular  
9 rocks that would bounce down the slope. It would  
10 not do much if anything for stopping a slope  
11 failure. A retaining wall that was keyed in with  
12 a foundation that went several feet below the  
13 surface would help maintain slope stability.

14 Q. Do you believe that the risks of the  
15 surficial slides and the -- that may be caused by  
16 the proposed construction have been adequately  
17 dealt with by the applicant?

18 A. No.

19 Q. You had testified that you have been  
20 a general safety expert, not in relation to  
21 pipelines but just as a general safety expert in  
22 various projects. Would you have a concern with  
23 respect to the proposal just from general safety  
24 standards based upon the specific proposal of  
25 excavation of the toe of the slope?

1           A.       Yes. I'll just add that that  
2       concern becomes even more elevated due to the  
3       proximity of the gas pipeline. There's an  
4       excavation slope failure risk and then since it's  
5       on the same site as a large gas pipeline which it  
6       could potentially affect, that just makes the  
7       risk even higher.

8           Q.       Now, we sent a lot on surficial  
9       slides and not -- we haven't spent much time on  
10      other slides, more deep seated slides. I'll use  
11      the phrase that the county used.

12                    You did provide in a report to this  
13      board originally on -- dated March 2nd, 2011 --

14           A.       Yes.

15           Q.       -- in connection with the first, the  
16      first portion of the application?

17           A.       Yes.

18           Q.       Can you -- an I don't want to repeat  
19      --

20                    MR. ALAMPI: John, did we call get  
21      copies of that? I know we have it from 18 months  
22      ago. Did you can you produce some extra copies  
23      for us?

24                    MR. LAMB: I did not since I knew  
25      that you would have it.

Cuniff - direct

1 MR. ALAMPI: Well --

2 MR. LAMB: I can see if I have -- I  
3 can see if I have extra copies.

4 MR. ALAMPI: I could go back to my  
5 office. I obviously do have it in one of the  
6 five or six banker boxes of files.

7 MR. LAMB: I thought that you would  
8 bring the report of the expert whose testifying  
9 out of all the banker boxes. But let me check --

10 MR. ALAMPI: So you're disappointed  
11 in my lack of preparation? I do have his  
12 transcripts so I guess I could --

13 MR. LAMB: No. I'm going to assist  
14 you.

15 MR. ALAMPI: That's okay.

16 MR. LAMB: No, I want to assist you.

17 MR. ALAMPI: I need the help.

18 MR. LAMB: I have an extra copy.

19 MR. ALAMPI: I can go through his  
20 transcript, it will take us a little time.

21 MR. LAMB: No need to. I have a  
22 clean copy.

23 MR. ALAMPI: Thank you.

24 MR. LAMB: I apologize I don't have  
25 other copies for you.

Cuniff - direct

1 MR. ALAMPI: Thank you, John.

2 MR. LAMB: You're welcome.

3 MR. ALAMPI: I knew you would have  
4 everything at your fingertips.

5 Q. And, again, we don't want to -- we  
6 have already testified to it, we don't want to  
7 repeat it --

8 MR. ALAMPI: John, when was this  
9 marked in the case record?

10 MR. LAMB: Let me see. We may have  
11 marked it in this one too.

12 MR. ALAMPI: Chairman, it is okay.  
13 Just for the record we can do this after the  
14 meeting. This must have been marked at the  
15 original application back in 2010.

16 MR. LAMB: I don't think we marked  
17 it in the current set of hearings.

18 MR. ALAMPI: No, it wasn't marked  
19 in.

20 MR. LAMB: So if we can mark yours  
21 since you have a clean copy but you can hold on  
22 it to with the permission of the board.

23 I think we're at --

24 MR. MUHLSTOCK: Your last exhibit  
25 was --

Cuniff - direct

1 MR. ALAMPI: G-39.

2 MR. MUHLSTOCK: G-39.

3 MR. LAMB: So G-40.

4 MR. MUHLSTOCK: So G-40.

5 MR. ALAMPI: So you want to mark

6 this --

7 MR. LAMB: Let's mark that as G-40.

8 MR. ALAMPI: G-40. And that is the  
9 Hatch Mott McDonald letter report to the North  
10 Bergen Planning Board dated March 2, 2011.

11 (Galaxy Exhibit 40, Hatch Mott  
12 McDonald letter report dated March 2, 2011,  
13 was marked for identification.)

14 Q. Now, Mr. Cunniff, that is the report  
15 that you previously submitted?

16 A. Yes.

17 Q. Can you briefly summarize the  
18 section on potential landslides on page 4 of the  
19 report for the board?

20 A. New Jersey has a wonderful online  
21 tool called IMAP. You can go to there website,  
22 you can turn on or off -- it's geographically  
23 based database and you can turn on and off a  
24 number of databases; surface water, highways,  
25 municipality boundaries. One of them is a

1 database for landslides. Another one is a  
2 database of earthquake epicenters. So I did  
3 that. I turned on those two data sets while  
4 zoomed in on the -- zoomed in on the Applevue  
5 property.

6 The findings, to summarize, were  
7 there were four earthquake epicenters within a  
8 five mile radius of this site and two degree  
9 flows and four rock falls within a two mile  
10 radius of the site.

11 THE CHAIRMAN: Over what time  
12 period?

13 THE WITNESS: It goes back to  
14 whatever their historical records cover which may  
15 be different for either database, and I don't  
16 have the metadata with me but it probably goes  
17 back to the '20s, 1920s.

18 Q. And did you also review the  
19 Landslide Susceptibility Map for Hudson County,  
20 New Jersey?

21 A. Yes.

22 Q. Can you advise the board what your  
23 review of that revealed?

24 A. That's a report that was generated  
25 after detailed review of the geology regionally

1 and that the report classifies the surficial  
2 geology into various landslide classes based on  
3 the relief or the topography as well as the  
4 surficial geology of the soil type and et cetera.  
5 And the site at the Applevew site was assigned a  
6 landslide class of A-IV, it's a Roman numeral  
7 four, which is strongly cemented rock slope angle  
8 30 to 40 degrees with the -- the classification  
9 doesn't reveal too much but the notation about  
10 New Jersey landslides in particular reveals a  
11 lot. It describes the Palisades as "one of the  
12 most active landslide areas is the Palisades  
13 located in northeastern New Jersey along the  
14 Hudson River." Predominantly due to their  
15 steepness.

16 Q. Now, I'm going to ask you what at  
17 least one board member will ask you. We have  
18 that problem right now, that -- those conditions  
19 are applicable to this property that's vacant; is  
20 that correct?

21 A. Yes.

22 Q. Okay. How does the proposed  
23 construction if constructed affect -- be affected  
24 if there is an earthquake or one of these  
25 incidents that you referred to?



1           A.       Well, right now there's -- there's a  
2       term that's called run out which is how far the  
3       debris if it falls on the slope, how far across  
4       the flat will the leading edge of the debris run  
5       out. When you have no development on the site  
6       it's not going to really impact anybody if the  
7       debris runs out all the way to the fence line.  
8       You know, if it stops before it hits the  
9       sidewalk, you're not going to endanger anybody by  
10      falling debris.

11                   But the fact is that the slope was  
12      in a natural state long before the pipeline was  
13      installed. When you're going now to dig into the  
14      toe of the slope, the natural slope, you run the  
15      risk of causing a slope failure during  
16      construction. I can't really speak about after  
17      construction because I'm not 100 percent sure  
18      from the plans that I've seen what the final  
19      grade is going to be, whether there will be a  
20      retaining wall or not, whether the building will  
21      be used as a retaining wall.

22                   Now, when you're talking about slope  
23      failure during construction, which obviously  
24      could negatively affect the construction workers  
25      which is bad enough, you run the risk of a

1 failure propagating over to the pipeline and  
2 damaging the pipeline which would be much worse  
3 and could affect the larger community than just  
4 the people on that site during construction.

5 Q. If you have some kind of earthquake  
6 or subterranean event, is it more likely to  
7 adversely affect the slope if the toe is  
8 excavated or is it more likely to affect the  
9 slope in its natural condition?

10 A. It's more likely to affect the  
11 excavated toe scenario because by definition  
12 you're making that part of the slope steeper,  
13 more susceptible to failure and erosion.

14 Q. Now, we just, we just marked A-40.  
15 I'd like to mark A -- I'm sorry, G-40. I'd like  
16 to mark G-41. I'm going to show you a copy of  
17 that and ask you to identify it.

18 MR. LAMB: I have a copy for Mr.  
19 Alampi.

20 (Galaxy Exhibit 41, document entitled  
21 Earthquakes Epicentered in New Jersey, was  
22 marked for identification.)

23 A. This is a color printout of the --

24 MR. ALAMPI: You have to wait.

25 THE WITNESS: I have to wait.

1 Q. Can you describe to the board what  
2 this is?

3 A. It's a map from the New Jersey  
4 Geological Survey website. It's called, it's  
5 entitled Earthquakes Epicentered in New Jersey.  
6 It's a color printout that you've handed out and  
7 the colors represent geologic formations within  
8 the state.

9 Q. And can you describe where the  
10 subject property is located on this G-41, general  
11 area?

12 A. Yes.

13 Q. Could you circle it please?

14 A. I can circle it. It's in the  
15 northeast portion of the state near the border  
16 between Hudson and Bergen counties.

17 Q. Okay. And --

18 A. Okay.

19 Q. And is that by the area that's  
20 marked in red, it looks like a red stripe that's  
21 going almost north to south?

22 A. Yes, there's a red stripe that's  
23 close to north-south. That is the Jurassic  
24 diabase which is the geologic term for the rock  
25 that makes up the Palisades.

1           Q.       And what does that, what does that  
2       mean as far as reviewing earthquakes on the  
3       subject property in the region?

4           A.       Well, the earthquake epicenters are  
5       shown on this map as very small black dots with  
6       very smaller numbers written next to them. The  
7       numbers are identifiers. You can look them up on  
8       the database on line and it shows, for instance,  
9       quake number 96 it will -- you look up 96 and it  
10      will tell the you the details about the quake,  
11      the strength, maybe where the epicenter where it  
12      was felt, if it caused any building or structural  
13      damage. There is a line of earthquakes, I'm just  
14      looking within that red unit across Hudson and  
15      Bergen counties I think it's about six or seven  
16      earthquakes are shown on this map that are  
17      clearly associated with the Palisades.

18          Q.       Now, those are -- I can -- my eyes  
19      have long ago been unable to detect those  
20      numbers.

21          A.       They're very small on this map.

22          Q.       But, but is it fair to say that  
23      there are five or six numbers in that little,  
24      little red stripe in this vicinity?

25          A.       Yes.

1 Q. And each one of those, each one of  
2 those numbers would equate to an incident?

3 A. Yes. These are earthquakes as  
4 opposed to landslides. And these, the spot on  
5 the map that's shown as the epicenter, the epi --  
6 the earthquakes of course occur at depth to the  
7 earth. The epicenter is defined as the spot on  
8 earth's surface which is directly above the  
9 center of the earthquake.

10 MR. LAMB: I'm going to try to help  
11 us out by asking you to identify what I'd like to  
12 mark as G-42.

13 (Galaxy Exhibit 42, epicenter  
14 database, was marked for identification.)

15 MS. HARTMANN: What happened to  
16 G-41?

17 MR. MUHLSTOCK: That's G-41,  
18 Celeste, it's called Earthquakes Epicentered in  
19 New Jersey.

20 MS. HARTMANN: I apologize.

21 THE WITNESS: G-41 I would referred  
22 to as the epicenter map. And he's about to  
23 happened out G-42 which is probably the epicenter  
24 database. This is the database where you can  
25 look up the number on the map and find out the

1 details of the earthquake.

2 MR. LAMB: These are blown up to as  
3 best as he could get it. I can show you the  
4 regular 8-1/2 by 11 page which I can't read.

5 MR. ALAMPI: This is as large as you  
6 can get the print.

7 MR. LAMB: This is as large as I can  
8 get the print.

9 MR. ALAMPI: Without distorting it.

10 MR. LAMB: Yes.

11 Q. And basically could you just  
12 describe for the board what the lines represent  
13 to the best of your eyesight?

14 A. There are seven earthquakes  
15 underlined on the G-42 table. They are the seven  
16 earthquakes that are -- that I previously spoke  
17 about which are associated with the red Jurassic  
18 diabase that cuts through Hudson County and  
19 Bergen County.

20 Q. Now, also on your report -- just,  
21 just go back one more to the colored map.

22 And what does the colored map  
23 indicate for New Jersey as far as earthquake  
24 susceptibility in general? There's an  
25 explanatory comment on from a --

1           A.       I think most people would be  
2 surprised. I mean, I do a lot of educational  
3 stuff with Boy Scouts and schools and I think  
4 most people, most audiences are surprised that  
5 the number of earthquakes that we have actually  
6 recorded in New Jersey. Most of the earthquakes  
7 in New Jersey are associated with the highlands  
8 which is to the west of here. Typically Morris,  
9 Passaic, Sussex County. It's directly due to the  
10 geology. There are some very large faults out in  
11 that vicinity of New Jersey, so there's a lot of  
12 earthquakes there. And by looking at this map  
13 you can see there's a line of earthquakes  
14 associated with the geology of the Palisades as  
15 well.

16                   If you were to look at the south  
17 part of the state, they are much fewer and  
18 farther between. And, again, that's related  
19 directly to the geology of the southern portion  
20 of the state which is most of New Jersey in the  
21 south is actually unconsolidated. You have to go  
22 very, very deep to hit rock. It's mostly  
23 sediment. So sediment doesn't really have faults  
24 in it. So the earthquakes are much deeper and  
25 possibly not felt as readily as the ones are up

1 here in the north where the bedrock is shallow.

2 Q. Okay. And finally the last portion  
3 of your report I want to focus on is the soil  
4 classes. And you opine in your report on page 5  
5 about the soil classes. Can you summarize that,  
6 please?

7 A. Yes. It can get confusing because  
8 there are many different soil classifications  
9 systems. This particular system we're talking  
10 about from their seismic soil classes. Soil  
11 Class A, hard rock with less than 10 feet of soil  
12 cover. In other words, hard, hard rock that --  
13 not soil. Then on the other end of the spectrum  
14 there is Soil Class E, seismic, Soil Class E,  
15 soft soil with low shear wave velocity. It just  
16 means it's soft and doesn't propagate energy as  
17 quickly or as efficiently as hard rock does.  
18 It's analogous to if that table could be  
19 representative of hard rock. If I pound on the  
20 one end of the table and you're standing at the  
21 other, you'll feel the vibration. But if the  
22 soil were made of clay, I could pound on one end  
23 of it and it would go thud, it would absorb the  
24 energy of my impact and you wouldn't feel the  
25 vibration on the other end of the table. That's



1 the difference between Soil Class A and Soil  
2 Class E.

3 Q. And how many soil classes are on the  
4 subject property to the best of your knowledge?

5 A. Two.

6 Q. What is that, as far as soil  
7 conditions, soil stability, how does that affect  
8 the issues that we've been raising?

9 A. Well, when I pointed it out in this  
10 report of mine it was to caution that if you have  
11 a pipeline that's all in one soil class, if  
12 there's an earthquake it will all vibrate at the  
13 same frequency. The energy -- there will be no  
14 energy differential between the vibrations  
15 that the far end of the pipe is experiencing when  
16 compared to the near end of the pipe. But the  
17 fact that it's in two different seismic soil  
18 classes means that the pipe itself, the energy  
19 from the earthquake or the seismic energy will be  
20 vibrating the pipe at two different frequencies.  
21 Because the pipe in the -- that's on top of the  
22 hard bedrock, the Soil Class A on top of the  
23 steep slopes transmits energy better than the  
24 soil that's down in the flat portion where it's a  
25 very thick layer of sediment and it's relatively

1 soft sediment. So it doesn't transmit energy as  
2 well as the solid rock.

3 So I'm pointing out in the report  
4 that the two ends of the pipeline on this site  
5 will be exposed to different vibrational energies  
6 as opposed to one frequency vibrating the whole  
7 pipe.

8 I'm not a mechanical or structural  
9 engineer, but I know that that's not good for  
10 things when you vibrate them in -- vibrate two  
11 ends at two different frequencies.

12 Q. As a general rule, what does this do  
13 to the risks of the proposed construction and the  
14 potential destabilization of the toe of the  
15 slope? What does the different soils mean?

16 A. In general the toe of the slope is  
17 probably best considered as the Soil Class E,  
18 soft soil. It's certainly on top of Soil Class E  
19 soft soil, so if you had a slope failure, what  
20 would happen is all of the Soil Class E, the soft  
21 soil, the sediment, would essentially  
22 preferentially slide off the stable bedrock. So  
23 you would expose -- the soil would move down the  
24 slope and you'd expose the solid stable bedrock  
25 further up the slope.

1           Q.     In general, Mr. Cuniff, do you  
2 believe that the excavation of the toe presents  
3 substantial risks to public safety and the  
4 potential effect on the pipeline?

5           A.     Yes.

6           Q.     Is that risk substantial?

7           A.     To reiterate what I said before, it  
8 becomes substantial when you add in the risk of  
9 damaging the pipeline. Without a pipeline there  
10 it's merely a construction risk, you're at risk  
11 until whatever your final construction is is  
12 done. So you're talking about the construction  
13 crew. But when you throw in the possibility for  
14 a slide to damage the pipeline, it makes it a  
15 substantial risk to the public as well.

16          Q.     Is it, is it fair to say that  
17 excavating the toe of the slope can cause a  
18 destabilization of that area?

19          A.     Yes.

20                 MR. LAMB: Nothing further, Mr.  
21 Chairman.

22                 MR. FERNANDEZ: One question.  
23 Excavating the toe of the slope can cause a risk  
24 but yet you're talking about putting in a  
25 foundation wall and digging a footing for it. So

1       what's the difference? You're going to dig down  
2       the depth of whatever is required for a footing  
3       on the slope.

4               THE WITNESS: Part of it has to do  
5       with the construction techniques that I've read  
6       about they're intending -- and the final or at  
7       least intermediate stage they're talking about  
8       excavating the toe of the slope and then leaving  
9       a 45 degree slope behind as opposed to over the  
10      course of one day hopefully when it's not raining  
11      which would make landslides more likely, they  
12      could dig the hole and get the retaining wall in  
13      all in one day and then work on the next segment  
14      the next day, kind of like when you underpin a  
15      house foundation or something like that.

16              And the fact that I haven't really  
17      seen a plan that shows the final grading and a  
18      final retaining wall, I don't know what state  
19      it's going to be left in if that 45 degree slope  
20      even with geotextile on top of it that's not --  
21      in my opinion that's not a long-term -- that's  
22      not a good status to leave it in the long-term.

23              MR. MUHLSTOCK: So let me just  
24      clarify. The risk that you're talking about is  
25      during construction?

1 THE WITNESS: And potentially after  
2 construction depending on how they leave it.

3 MR. MUHLSTOCK: You haven't seen,  
4 you haven't seen the final --

5 THE WITNESS: Right.

6 MR. MUHLSTOCK: -- grading and the  
7 final retaining walls. Assuming that those --  
8 that the construction satisfies your concerns,  
9 your biggest concern here is during the  
10 construction?

11 THE WITNESS: I'm certainly  
12 concerned about during construction. Depending  
13 on how they leave it in the long-term, I might  
14 still have concerns after that but I haven't seen  
15 the final plan.

16 MR. MUHLSTOCK: And just a follow-up  
17 on that, does that also apply with respect to  
18 your concern of earthquake, that the earthquake  
19 would have an effect during construction after  
20 the building, assuming the building is built and  
21 an appropriate retaining wall is built to prevent  
22 slide and the final grading plan meets with what  
23 you would consider your approval and then an  
24 earthquake occurs, would be, would be like any  
25 other episode at that point.

1 THE WITNESS: Possibly except now  
2 you have a building there which wasn't there  
3 before. An earthquake now would not be impacting  
4 a five-story building. We could always have an  
5 earthquake at any time. We could have one now or  
6 we could have one after the project is built.

7 MR. MUHLSTOCK: Right, right.  
8 Earthquake could affect the Galaxy if it happened  
9 near -- if the epicenter was nearby.

10 THE WITNESS: Absolutely. I'm more  
11 concerned about the earthquake affecting the  
12 pipeline, though, and resultant hazards if  
13 something should happen and the pipeline should  
14 rupture. That could happen now and it could  
15 certainly happen whether or not construction  
16 takes place on it. The worse possible scenario  
17 would be for an earthquake to occur during  
18 construction when the slope is -- I mean, the  
19 likelihood of that is remote, but...

20 MR. MUHLSTOCK: Okay.

21 THE CHAIRMAN: If after construction  
22 the final grade were at a rate that you would  
23 find acceptable, that would minimize any danger  
24 there, is that what you're saying?

25 THE WITNESS: My opinions would

1 perhaps differ from engineering opinions on what  
2 the final protective devices would be. I don't  
3 like to fight nature, so I would be in the favor  
4 of increasing the -- remember I described the run  
5 out area. A longer setback -- more distance  
6 between the toe of the slope and the rear  
7 building would provide for a longer run out area.  
8 Retaining walls fail, they need maintenance.  
9 Depending on how they're built they erode, the  
10 water degrades, stuff like that, so I prefer the  
11 lower maintenance type of options.

12 THE CHAIRMAN: Before we go on to  
13 Mr. Alampi why don't we take a five-minute break.

14 (Recess taken.)

15 THE CHAIRMAN: Ladies and gentlemen,  
16 please take your seats. Let the record reflect  
17 that all of the board members who were here  
18 before the break are again present.

19 Mr. Alampi, you're on.

20 MR. ALAMPI: At least I lost my  
21 place on this. Just one second, chairman.

22 CROSS-EXAMINATION

23 BY MR. ALAMPI:

24 Q. Mr. Cunniff, at the last meeting  
25 towards the end of your testimony you talked

1 about making a field inspection or walking  
2 through the site back in the summer I believe in  
3 July of this year?

4 A. Yeah, it was the day of the hearing,  
5 July 28th.

6 Q. 12th?

7 A. 12th.

8 Q. And so how had you been on the site  
9 prior to that?

10 A. I haven't been on the site. I have  
11 looked at the site from adjacent properties.

12 Q. Right. But you hadn't been on the  
13 site --

14 A. Hadn't been on the site.

15 Q. -- directly until that time?

16 A. Correct.

17 Q. And then the applicant did afford  
18 you the opportunity to go onsite?

19 A. Yes.

20 Q. During the course of that inspection  
21 you indicated in your testimony that you saw a  
22 section of the property where there was a large  
23 area of ponding. Is that the same reference that  
24 you made this evening about an area of ponding  
25 where you saw algae growing in the ponding?



1           A.       Yes, I was referring to the same  
2       area.

3           Q.       What significance did that have to  
4       you?

5           A.       The fact that the water had been  
6       standing there long enough and had -- so that it  
7       had algae growing into -- in it indicated to me  
8       that it was not just a puddle left from the  
9       morning's rainstorm but it was a more permanent  
10      or semi-permanent feature on the site at that  
11      location.

12          Q.       What does that mean to us from your  
13      point of a view as a geologist?

14          A.       The soil is poorly drained.

15          Q.       Now, could you show us with your  
16      hands where that was on the site?

17                 MR. ALAMPI: We're going to refer  
18      to, for the record this is an exhibit that was  
19      marked at the July 12th meeting RA-10. And it is  
20      the grading drainage and soil -- utility and soil  
21      control plan from the earlier planning board  
22      hearing in 2011 but resurrected during these  
23      remand.

24                 THE CHAIRMAN: Right. Thank you.

25          A.       On this map there's a -- it shows

1 one of the existing retaining walls that someone  
2 built, some unknown person built a while ago. It  
3 was in the vicinity of what I would call the  
4 middle retaining wall right near the edge of the  
5 limit of disturbance as shown on that map.

6 Q. Would you say it was here  
7 (indicating)?

8 MR. MUHLSTOCK: Mr. Alampi, would  
9 you like the witness to draw a little circle with  
10 some colored pen so we have a record of where he  
11 is pointing to?

12 MR. ALAMPI: I don't have a marker  
13 but I know that --

14 MR. LAMB: Yellow?

15 MR. ALAMPI: -- my good friend, Mr.  
16 Lamb, would have a marker.

17 MR. LAMB: I have red too.

18 MR. ALAMPI: I'm surprised he didn't  
19 bring a bologna sandwich.

20 MR. LAMB: I have that.

21 Q. Robert, all we want you to do on  
22 this exhibit that was marked as RA-10, just in  
23 the general area where you saw that ponding  
24 situation.

25 (Witness complies.)

1           Q.     Now, could you taking the reports I  
2     think you have the Mahle-Greco report of June 1  
3     that established where some of the test pits were  
4     made and I guess borings. And would you show us  
5     if there were any test pits or borings that were  
6     in that general area or in fact just with dots,  
7     don't make circles, just press dots if you can  
8     just to give us a sense of the test borings that  
9     the Mahle-Greco shows on her schedule in her  
10    report.

11                   (Witness complies.)

12           Q.     You don't have to do all of them,  
13     just like if I'm incorrect, just correct me,  
14     right in the center of that circle and one, two,  
15     three, four, five additional borings right around  
16     the perimeter of that circle is what you dotted  
17     just now; is that correct?

18           A.     Yes.

19           Q.     Do you think perhaps that water was  
20     sitting in a bowl like configuration because of  
21     these test borings activities?

22           A.     Quite possibly.

23           Q.     Okay.

24           A.     But it didn't drain after the  
25     rainstorm.

1           Q.       That's okay. Now, with regard to,  
2       with regard to your testimony this evening, would  
3       you characterize your testimony primarily as  
4       areas of concern as opposed to conclusions?

5           A.       I'm not sure what the  
6       differentiation is between those two terms.

7           Q.       Okay. No problem, I'm not trying to  
8       trick you. I'll rephrase it or ask it in a  
9       different way.

10                  You gave various points of opinions  
11       or you discussed certain things about  
12       construction activities, about the toe of the  
13       slope excavation, about impacts, about the  
14       natural repose as opposed to a manmade repose,  
15       things of that nature. Would you qualify or  
16       would you characterize your testimony in that  
17       regard as identifying areas that you were  
18       concerned about as opposed to actually drawing  
19       any conclusion one way or the other?

20           A.       I'm struggling with the way the  
21       question is phrased. What I have not done, I  
22       don't think, is I'm not making any  
23       recommendations to solve areas of concern that  
24       I've noticed. I can make conclusions based on  
25       analysis of the areas of concern. Excavation

1       into the toe of the slope would be -- it would be  
2       better if that were avoided. In lengthening the  
3       run out area by increasing the setback would be a  
4       safer approach. I mean that's a conclusion, I  
5       think.

6               Q.       You don't consider that a  
7       recommendation? You consider that a conclusion?

8               A.       You'll have to give me your  
9       definition of conclusion and your definition of  
10      recommendation. I'm not designing anything  
11      because I'm not a design engineer but I can  
12      recommend approaches to be avoided, certainly, if  
13      they're -- they raise a high level of concern in  
14      my mind.

15              Q.       Well, why didn't you make  
16      recommendations with regard to this project and  
17      the construction of the building and the  
18      methodology of construction and all the testimony  
19      that has gone on, why didn't you make  
20      recommendations?

21              A.       Well, I've only been asked to  
22      produce one report which I did well over a year  
23      ago at this point. Beyond that I've been asked  
24      to give testimony about other people's reports  
25      for the most part, reviewing other people's

1 testimony and other people's reports.

2 Q. So you didn't feel it was important  
3 to make any affirmative recommendations?

4 A. I haven't been asked by my client to  
5 provide any recommendations to solve any problems  
6 that I see in those reports.

7 Q. Could you make recommendations with  
8 regard to the plans, the studies and the reports  
9 and the testimony that has already been presented  
10 to date?

11 A. I think I already have. Increase  
12 the setback, don't dig into the toe of the slope.

13 Q. So you did make recommendations?

14 A. Well, I made them verbally. I have  
15 not put them into a report. I just -- we all  
16 know I'm here as a geologist and not as an  
17 engineer, so I'm not going to design anything in  
18 the form of a remedy. That's an engineer's job.

19 Q. Well, you had opinions with regard  
20 to the two-foot berm and with regard to stability  
21 wall or temporary wall. You had opinions on  
22 those things?

23 A. Yeah. Everyone has opinions.

24 Q. And didn't it require you to  
25 evaluate the design? I don't say you designed

1 it, but didn't it require you to understand the  
2 design?

3 A. Those things that you're referencing  
4 I would not claim as design features. They were  
5 not -- they were not to the point where -- I  
6 mean, the two-foot rock berm wall is in a report,  
7 for instance, it's not in plans and  
8 specifications so it's not a design. It's an  
9 idea at this point. It's a pre-design stage, if  
10 you will.

11 Q. So when -- you're saying that it's  
12 in the report, you're talking about the June 1 --

13 A. The Johnson report.

14 Q. -- 2012 Johnson report?

15 A. Yes.

16 Q. So when the report in various areas,  
17 especially I'll ask you to look at cross-section  
18 B towards the back of the report.

19 A. I have it.

20 Q. Okay. So when the report has a  
21 diagram such as this cross-section B and it makes  
22 reference to per civil plans in parenthesis.  
23 What do you think that means?

24 A. It means the large group of maps,  
25 large size maps that that probably came from.

1 Q. This here?

2 A. Yes.

3 Q. So when the report says "swale (per  
4 civil plans)", aren't they incorporating these  
5 civil plans by references?

6 A. The swale is on there. The two-foot  
7 high rock berm is not.

8 Q. And so, okay, so if it says two-foot  
9 high rock berm and doesn't indicate civil plans,  
10 you don't think that it's on the plan, on the  
11 engineering plan?

12 A. I don't recall seeing the two-foot  
13 high rock berm on this engineering plan.

14 Q. You also, you note on this  
15 cross-section B I'm going to show you an arrow,  
16 wording that says "existing grading" with an  
17 arrow drawing to a line. Do you see that?

18 A. Yes.

19 Q. And what does that mean, that  
20 illustration on cross-section B where it says  
21 existing grading and has an arrow pointing to a  
22 line, what does that depict?

23 A. The existing natural grade prior to  
24 any construction disruption.

25 Q. And when you go to just below that



1 it says of course two-foot high rock berm,  
2 correct? And just below that it says excavation  
3 line and what does that mean?

4 A. Everything above that dashed line is  
5 going to be removed by excavation.

6 Q. And did you have the opportunity  
7 after reviewing this report and these exhibits,  
8 did you have the opportunity to evaluate and look  
9 at this exhibit, RA-10, and the many other  
10 engineering exhibits?

11 A. Yes.

12 Q. Did you compare the cross-sections  
13 and did you look at the engineering plans to see  
14 if they're correlated in any way?

15 A. Well, I don't believe these  
16 cross-sections have changed very much since the  
17 original report and I wouldn't say that I  
18 evaluated the civil plans or the specifications  
19 for constructability or design purposes because  
20 I'm neither a contractor nor an engineer. But  
21 the testimony that's been given on this diagram  
22 confused me because Ms. Mahle-Greco said the  
23 swale may or may not be left as present. The  
24 package which is rather thick of all the design  
25 drawings, I saw no design drawing that said final

1 grading plan. So I am unsure as to what futures  
2 will be temporary during construction and which  
3 will be the final protective construction after  
4 everything is built and construction activity  
5 ceases.

6 Q. If you go to RA-10 again, isn't it a  
7 fact that these contour lines constitute what  
8 will be the final grade, the contour lines behind  
9 the -- behind the proposed building?

10 A. As I said, there is no drawing  
11 that's labeled final grading plan. I don't see a  
12 final grade notation that that's going to be the  
13 final grade. And the testimony I heard left  
14 uncertainty in both the test fire and my mind as  
15 to whether the drainage swale will continue to  
16 exist after construction.

17 That plan is dated 2009, by the way.  
18 This report is a 2012 report.

19 MR. LAMB: Mr. Chairman, with all  
20 due respect Mr. Alampi is asking questions that  
21 are not based upon the testimony of his witness.  
22 His witness said there is going to be another --  
23 my recollection is there's going to be another 10  
24 feet beyond that what's shown in a retaining  
25 wall. So we're now asking questions, I don't --

1 I mean, Mr. Alampi can correct my understanding,  
2 I understood it to be another 10 feet behind  
3 what's there and the retaining wall, none of  
4 which is shown. Now, if I'm --

5 MR. MUHLSTOCK: Well, the objection  
6 is -- I don't think can be sustained because this  
7 is cross-examination and your witness --

8 MR. LAMB: But if he --

9 MR. MUHLSTOCK: No, your witness can  
10 say Mr. Alampi, I don't understand or Mr. Alampi,  
11 I didn't do it or Mr. Alampi, I have no opinion.  
12 Not for you to say.

13 MR. LAMB: Right.

14 MR. MUHLSTOCK: For the witness to  
15 say.

16 MR. ALAMPI: That's all I need.

17 MR. MUHLSTOCK: So if that's what  
18 the witness wants to say, let him say it.

19 MR. LAMB: Okay.

20 Q. So as Mr. Muhlstock alluded to, all  
21 I'm asking is whether you have an opinion you  
22 have the ability to understand whether these are  
23 final grades or not?

24 A. My opinion is that they are not  
25 based on testimony within the last several months

1 from Ms. Mahle-Greco and the fact that her most  
2 recent report is three years more recent than  
3 that diagram and she verbalized changes to the  
4 grading plan in that diagram which I have not  
5 seen on paper other than a two-foot high rock  
6 berm in her report.

7 Q. Do you know what the purpose of that  
8 rock berm is?

9 A. I believe in her testimony she said  
10 it was there to stop rock fall, individual rocks,  
11 not a landslide.

12 Q. And do you doubt that the two-foot  
13 berm would help to prevent or to curb rock fall  
14 from going beyond the area of that two-foot berm?

15 A. It would stop some rock fall. It  
16 would not stop all rock fall and I think it would  
17 be close to useless in a slope failure. I think  
18 in fact it may exacerbate the risk for a slope  
19 failure because you're loading the excavation on  
20 the toe of the slope by piling two feet of rock  
21 right on the lip of the excavation, something  
22 you're not supposed to do. As a general  
23 construction practice if you dig a pit to take  
24 out an underground storage tank you have to move  
25 the excavated soil far away from the edge of the

1 pit so you don't load the edge of the pit. The  
2 way it's shown in the her report, she's actually  
3 loading the top of the 45 degree slope which  
4 would be more likely to fail in that case.

5 Q. Do you know whether or not Boswell  
6 Engineering, Mr. McGrath had reviewed these  
7 details and criticized these details?

8 A. I do know.

9 Q. With regard to your activities on  
10 the site, do you have notes, field notes with you  
11 with regard to your inspection and your  
12 observations?

13 A. No, I do not have any with me.

14 Q. Did you create field notes?

15 A. I think I took pictures. I took  
16 notations. I did not write a report.

17 Q. Well, let's talk about the gas pipe  
18 area. You raised some concerns and you discussed  
19 quite extensively the difference between -- let  
20 me get the correct wording -- surficial slides or  
21 surficial landslides as opposed to deep seated  
22 landslides?

23 A. Yes.

24 Q. And was it your testimony that you  
25 believe that there would be as much as a six foot

1 deep surficial slide on this property?

2 A. I didn't say it that way but what I  
3 said was the county report by PMK refers --  
4 defines surficial slides as being from one up to  
5 six feet in thickness of soil and loose rock. So  
6 when you say there is a risk of a surficial slide  
7 on this site, you are -- that encompasses a slide  
8 of up to a six-foot wedge of material.

9 Q. Do you know whether any personnel of  
10 the county or PMK walked the site and inspected  
11 the site in order to make that report what we'll  
12 call the County Stability Study Report?

13 A. I do know. I do not have that  
14 recollection in my head. I know they have  
15 photographs of this site. I would say it highly  
16 likely that they walked this site. This site is  
17 identified specifically as site No. 6 in the  
18 county report with specific recommendations for  
19 protecting the toe of the slope, so I imagine  
20 they walked the site.

21 Q. Well, you've read the report, didn't  
22 you, this G-39, this is the Slope Stability  
23 Study, Palisades Slope Stability Study dated  
24 September 2008, September 3rd, revised February  
25 3rd, 2009, you read this report?

1           A.     I did.

2           Q.     Can you point out to us, perhaps I  
3 missed it, where the author and parties involved  
4 with this evidence that they walked the site,  
5 that they personally inspected the site?

6           A.     I said I didn't have a recollection  
7 that they did that. I imagined that they would  
8 have based on their recommendations for this  
9 specific site number 6.

10          Q.     Well, I'm asking you if you can  
11 point out in the report. You would think that  
12 whoever was involved with the report would  
13 explain how they approached the subject site and  
14 did their report.

15          A.     I'm looking for a methodology  
16 perhaps in the scope of services which I'll have  
17 to reread now.

18          Q.     If you don't recall, I'll leave it  
19 at that.

20          A.     I've already said I don't recall.

21          Q.     Let's go to page 33. You spent some  
22 time to bring to our attention the conclusions  
23 and recommendations section specifically Item  
24 No. 2 on page 33 --

25          A.     Yes.

1 Q. -- of that report?

2 And I was having a difficult time  
3 following your testimony or your conclusion. You  
4 were saying as a result of this provision in  
5 reviewing it that the county -- the conclusion  
6 here at the county report was that it was concern  
7 that there would be deep seated landslides? Am I  
8 misstating your testimony?

9 A. To a degree, yes. It says in the  
10 second sentence of conclusion 2 "Although  
11 unlikely, the potential will always exist for  
12 bedrock failure." That's the first clause of the  
13 sentence which is a deep seated failure.

14 Q. Although unlikely, the potential  
15 will exist?

16 A. Yes.

17 Q. Wouldn't potential always exist  
18 everywhere along the Palisades?

19 A. Yes, by virtue of the topography.

20 Q. Right. I mean, you went into great  
21 detail to bring out G-41 and G-42, these  
22 epicenter reports and earthquake reports and to  
23 emphasis or what these reports emphasize with the  
24 red stripe along the Palisades, that these would  
25 be areas that would be, what, more susceptible to



1 earthquake activity? Is that what the purpose of  
2 these reports is?

3 A. The purpose of that recent exhibit  
4 is to show that there in the past and presumably  
5 in the future there will be seismic sources of  
6 energy in this area.

7 Q. Let me rephrase it.

8 Do these reports indicate in any way  
9 that it would be more likely to have these  
10 epicenter activities or epicenter earthquake  
11 epicenters than in other areas?

12 A. Yes, it is more likely to have  
13 earthquake activity here along the Palisades than  
14 in most other areas of New Jersey.

15 Q. Because you wouldn't expect that  
16 along the beach front and along the sandy shores,  
17 right?

18 A. Yes, you wouldn't expect it in South  
19 Jersey where there is no rocks, no faults to  
20 move, yes.

21 Q. Flat land, sometimes at sea level  
22 more or less?

23 A. Well, it's not necessarily flat land  
24 but it's the presence of bedrock, solid stable  
25 bedrock that has been faulted which provides it a

1 plain of weakness to move. It's the movement of  
2 rocks along a fault plain which provides the  
3 seismic energy which results in an earthquake.

4 Q. And with these charts you're saying  
5 that there have been -- and I think in your  
6 report from last -- was it the report from last  
7 year you referred to four episodes that occurred?

8 A. Yes, some of those epicenters are no  
9 doubt shown on the map that was introduced today.  
10 I just didn't reference the four, I just said  
11 they were within a certain radius. I didn't  
12 identify them as specifically as they are  
13 identified on that table that was handed out  
14 today.

15 Q. Are you testifying that the  
16 construction activity will in some way aggravate,  
17 accelerate or increase the occurrence of these  
18 epicenter activities?

19 A. No.

20 Q. These could occur regardless of what  
21 happens or doesn't happen on the Appleview site,  
22 correct, the epicenter --

23 A. They likely will occur regardless of  
24 what happens on the Appleview site, yes.

25 Q. Now, the gas -- going back -- I'm

1       sorry, going back to that conclusion No. 2, you  
2       seem to dwell on the potential will always exist  
3       for bedrock failure but you don't continue with  
4       the sentence which says "during a seismic event  
5       resulting from atypical fracture patterns."

6               A.       Because the risk on this site is not  
7       primarily from a bedrock failure. It's primarily  
8       from a surficial soil failure.

9               Q.       So then you're saying more likely  
10      soil movement or land movement rather than the  
11      bedrock itself is a more likely occurrence?

12              A.       Yes. So does the county report.

13              Q.       Well, the county report defines the  
14      landslide activity as from one to six feet, is  
15      that their definition?

16              A.       That's their definition of a  
17      surficial slide.

18              Q.       All right. Have you seen evidence  
19      of a six-foot deep slide of land on the site?

20              A.       On the site?

21              Q.       Yes, on this site, the Applevew  
22      site.

23              A.       No.

24              Q.       Have you seen evidence of the gas  
25      pipeline being exposed because of rock slide, the

1 pipeline itself?

2 A. I've seen the beginnings of it in  
3 the photographs of the exposed Geoweb.

4 Q. The question is have you seen the  
5 exposure of the pipe itself.

6 A. No, the pipe is not exposed on this  
7 site.

8 Q. But you did give testimony that you  
9 were concerned about the six foot deep landslide  
10 and that it could expose the pipe and then  
11 destabilize the pipe?

12 A. Yes.

13 Q. But you haven't seen any evidence of  
14 that?

15 A. Within a year after a landslide  
16 occurs rain, wind, other forces of nature have  
17 muted the outline of the landslide and it merely  
18 becomes part of the talus slope. That talus  
19 slope, the loose rock, the soil, the toe of the  
20 slope, everything that isn't stable rock is a  
21 result of either a rock fall or a soil failure or  
22 erosion that has historically occurred on that  
23 site.

24 Q. Over maybe 10,000 years?

25 A. Less than 10,000 years but that's an

1 approximate time frame, yes.

2 Q. More than 100 years?

3 A. More than a hundred years.

4 Q. Maybe 9,500 years?

5 A. Probably more like 7,000, in the  
6 last 7,000 years based on glaciation, yes.

7 Q. And yet that gas pipe has been there  
8 about 55 years, isn't that true?

9 A. Yes.

10 Q. And you haven't seen any exposure of  
11 that gas pipe, have you, on the site?

12 A. Considering I've only been there  
13 once in real life, no. And I didn't see it over  
14 the last 55 years. I know there was significant  
15 erosion referenced in the Johnson report in the  
16 '90s.

17 Q. I don't even think you're 55 years  
18 old, are you?

19 A. No, I'm not.

20 Q. There you go.

21 With regard to this conclusion,  
22 number two, it goes on to say "There is no  
23 investigative technique which is practical from a  
24 financial and logistical standpoint to verify  
25 that such a condition does not exist in the

1 region." What does that mean?

2 A. Basically it means you can't prove a  
3 negative. Let me explain to the board my  
4 concern. You used the term dwelling on  
5 recommendation No. 2. I'm not concerned about  
6 it. I'm not as concerned about a deep seated  
7 bedrock failure on this site as I am a surficial  
8 one.

9 Q. Okay.

10 A. It has to do with the definitions of  
11 deep seated slide versus surficial. I think  
12 people have read this report which says  
13 relatively stable against deep seated landslides  
14 and they said ah, no problem, without realizing  
15 that a deep seated landslide is something deeper  
16 than six feet.

17 Q. So these various civil engineers  
18 really don't understand this terminology and  
19 really don't know how to read this report?

20 A. I think if you asked a civil  
21 engineer if I suddenly removed six feet of soil  
22 from around and on top of the pipeline, would  
23 that be a bad thing, they would all agree, yes,  
24 that would be a bad thing.

25 Q. And yet you've seen no evidence of

1 six feet of landslide on the subject property,  
2 have you?

3 A. Sure I have. The talus slope is way  
4 thicker than six feet. I didn't see it happen  
5 but it slid down the hill at some point.

6 Q. You didn't see any evidence in the  
7 last 500 years of six feet of landslide, did you?

8 A. When I go to the site, I look at  
9 evidence of what's happened in the last 500  
10 years. There have been landslides there within  
11 the last 500 years that were probably not  
12 witnessed by anybody when they occurred but that  
13 soil and that rock and that slope got there  
14 somehow.

15 Q. Part of your testimony this evening  
16 had to do with natural repose as opposed to  
17 alterations and modifications that could impact  
18 what would be the natural repose, is that a fair  
19 statement?

20 A. Yes.

21 Q. You discussed those two concepts?

22 A. I discussed the angle of repose and  
23 excavation which might make something steeper  
24 than the natural angle of repose.

25 Q. So the natural angle of repose as

1       opposed to some excavation that could widen or  
2       enlarge the angle of repose?

3             A.       It's a fine point but the angle of  
4       repose is the angle at which a mixture of  
5       material will over time naturally slump to.

6             Q.       Okay.

7             A.       Okay. When you're dealing with --  
8       if you're going to excavate in same material you  
9       don't change the angle of repose, you just change  
10      the angle of the pile of material. If it's  
11      steeper than the angle of repose, over time it's  
12      going to slump back down to its natural angle of  
13      repose.

14            Q.       And in the conditions of the  
15      Applevue project and the construction protocol  
16      and the details of the plans and the testimony of  
17      the various witnesses, how long of a time period  
18      do you suggest would be of concern for this angle  
19      of repose to be affected? Is it something that  
20      could happen in 30 days or one year or ten years?

21            A.       You can have a soil failure in an  
22      hour. You can have a surficial soil failure  
23      immediately after you start excavating.

24            Q.       That's why they shore up when they  
25      do excavate, right? They usually -- you're a



1 safety expert, OSHA requirements, various  
2 standards, you're not going to excavate without  
3 shoring up the area and putting a curtain wall or  
4 a steel wall or some type of methodology to hold  
5 back the soil from being destabilized, isn't that  
6 an OSHA standard?

7 A. It is. It depends on the soil type  
8 and the depth of your excavation. And I haven't  
9 seen any plans for shoring this or stabilizing it  
10 other than to make it 45 degrees and put some  
11 kind of geotextile on top of it.

12 Q. Right. But that's a methodology of  
13 addressing that. You may think --

14 A. No, it's not shoring. It prevents  
15 it from eroding. It doesn't prevent it from  
16 failing underneath the geotextile.

17 Q. Is one of your recommendations that  
18 they would do shoring in this area temporarily  
19 while this type of work was going on?

20 A. I don't think I've made any  
21 recommendations long those lines.

22 Q. Would you recommend shoring as --

23 A. No, the recommendation that I've  
24 made is to not artificially steepen the slope.

25 Q. Again, there was discussion by

1 yourself about the angle of repose and/or  
2 excavation that affects the toe of the slope in  
3 this area behind the proposed building, correct?

4 A. Yes.

5 Q. This is the area you were talking  
6 about (indicating)?

7 Explain to me your concerns about  
8 excavation in the southern half of the property  
9 which is steeper than the northern half, how you  
10 would expect that there would be an impact to the  
11 gas pipe from that section that's almost 200 feet  
12 away from the gas pipe?

13 A. True, but the limit of disturbance  
14 as shown on the map goes almost across the entire  
15 site from north to south. It's less likely that  
16 excavating on the southern end of the property  
17 would affect the pipeline. There is more  
18 excavation that has to take place on the  
19 southern -- more material will be removed from  
20 the southern end but you're still excavating on  
21 the northern end directly down slope from the  
22 pipeline.

23 Q. Significantly more material will be  
24 excavated on the southern part than the northern  
25 part, isn't that true?

1           A.       More material will be excavated on  
2       the southern part than on the northern part.

3           Q.       Which is more remote from the gas  
4       pipe, correct?

5           A.       Yes.

6           Q.       You talked about the elevation or  
7       the elevation of the footings of the building and  
8       the elevation of the pipeline itself. You spoke  
9       about the relationship of elevations above, even  
10      to or below the elevation of the pipe, didn't  
11      you?

12          A.       That was because one of the pipeline  
13      experts testified that he wasn't concerned until  
14      you disturb soil beneath the level of the  
15      pipeline.

16          Q.       We will agree that his testimony  
17      that in the area of the flat area where the body  
18      of the construction and the mounting of the  
19      building will be placed is not below the  
20      elevation of the gas pipe based upon their  
21      statements as to the -- how deep the gas pipe is  
22      at that point?

23          A.       I don't even have close to the  
24      amount of knowledge I need of the pipeline  
25      structure. I've never seen a cross-section of

1 the pipeline. He says it's buried between three  
2 and 10 feet. Where? I don't know if it's 10  
3 foot at the top of the mountain. I think it's  
4 likely that the thinner cover is on top of the  
5 slope and the thicker cover is down in the flat  
6 area. But I haven't seen any construction  
7 diagrams of the pipeline in terms of where its  
8 depth -- what depth its at at different portions  
9 of the site.

10 Q. But it's clear that Transco in  
11 evaluating the engineering reports and giving  
12 sworn testimony emphasized they had no concern in  
13 this area because of the fact that the excavation  
14 and the footings are not going below the  
15 elevation of the gas pipe on the flat area of the  
16 property, isn't that true?

17 A. I wouldn't say they had no concern.  
18 Are they not insisting that you do vibration  
19 monitoring or is that is that just something that  
20 the developer said we'll do as an extra?

21 Q. Everybody said it. We wanted it.  
22 They want it. The county wants it. The board  
23 want it.

24 A. Okay. So then if Transco wants it,  
25 then it's clear that they have some concern.

1           Q.     You would think that we would just  
2     pound away and drive piles without being  
3     sensitive to that whole issue? Is that what you  
4     think?

5           A.     I have seen and work with  
6     contractors that would, yes.

7           Q.     Are you watching the piles being  
8     driven across the street right now at the park in  
9     closer proximity to the pipe?

10          A.     No.

11          Q.     Happening at the present time?

12          A.     No.

13          Q.     You haven't noticed it?

14          A.     I don't live in the area.

15          Q.     Okay. And so there's no concern  
16     about that current activity that's ongoing?

17          A.     I didn't know about it until you  
18     just told me about it.

19          Q.     Okay. With regard to the -- your  
20     testimony about the elevation of the pipe, are  
21     you not discussing the fact that the pipe as  
22     it -- you could say as it ascends the cliff face  
23     or you could say descends the cliff face, are you  
24     not talking about the pipe that is going up to  
25     the 90, 95 foot high ridge of the cliff face

1       which is above the entire building that's going  
2       to be placed?

3             A.       Yes, I am talking about that.   When  
4       I talk about the elevation of the pipe being  
5       above all the construction activity, that's the  
6       segment of the pipe I'm talking about, not the  
7       pipe -- I'm not talking about the pipe that's  
8       buried in the flat section.

9             Q.       In fact, early on -- I wouldn't say  
10       early but about 15 or 20 minutes into your  
11       testimony I think you -- I'm sorry, Chairman, I  
12       have these notes all over the place -- I think  
13       you used words with regard to the construction --  
14       I guess I didn't write it down.   I thought that  
15       you said specifically that you had no concerns  
16       about the construction itself as it relates to  
17       the pipe, the construction of the building as it  
18       relates to the pipe, gas pipe.

19            A.       I don't recall that statement but  
20       I'll say this, I have a less concerns about the  
21       construction activity of the building itself and  
22       the foundation affecting the pipe that is in the  
23       flat area of this site.   I have much greater  
24       concerns about construction activities,  
25       particularly excavation activities that might

1 affect the slope and therefore the pipeline on  
2 the upper portion, the steep portion of the site.

3 Q. Well, once again with your hand on  
4 that exhibit, the construction activity is taking  
5 place exactly where raising your concern?

6 A. Anywhere within the limit of  
7 disturbance that's identified on this map  
8 (indicating).

9 Q. Anywhere?

10 A. Anywhere.

11 Q. So you don't think any kind of  
12 building could be developed on this site that  
13 wouldn't be a concern?

14 A. No, I didn't say that.

15 Q. What are you saying?

16 A. I'm saying that excavation within  
17 that limit of disturbance has the potential to  
18 cause a surficial soil slide potentially up to  
19 six feet deep on slopes above it because slides  
20 when they fail, they can propagate outwards.  
21 Almost any excavation anywhere on the site, even  
22 on the south side, could potentially cause  
23 failure that would propagate into the path of the  
24 pipeline and expose the pipeline.

25 It is less likely that an excavation

1 on the southern end of the property could expose  
2 the pipeline, and much more likely that an  
3 excavation on the northern side of the site  
4 would, if a failure occurred, would expose the  
5 pipeline as it goes up the slope but it's degrees  
6 of probability.

7 Q. And is it highly improbable that  
8 there would be an issue based on the location of  
9 the building as proposed and with regard to the  
10 location and position of the gas pipe or can't  
11 you answer that?

12 A. I think I have been clear that the  
13 excavation on the site causes me concern about  
14 the safety of the pipeline. So I would not agree  
15 with your statement that it's highly improbable.  
16 I think that's what you said.

17 Q. So you think it's probable?

18 A. It's -- if you mean more than 50  
19 percent chance, I'm not going to assign a  
20 percentage value to it. There are increased  
21 risks associated with excavating on this site  
22 because of the pipeline. I haven't done any  
23 modeling or anything that could generate a  
24 quantifiable percentage chance of failure.

25 Q. Why have you not? Why have you not



1 done any modeling?

2 A. There's not enough details and I  
3 haven't been asked to by my client. I've been  
4 asked to point out if there's any risks  
5 associated with the activity on the site as  
6 proposed and in my opinion there are.

7 Q. So essentially just as Bertin  
8 Engineering did a Risk Identification Report  
9 dating March 23, 2011 and revised March 30th,  
10 2012, this report is a Risk Identification Report  
11 and you're essentially modeling your testimony as  
12 to identifying the risks?

13 A. In general I'm identifying risks  
14 associated with this project, yes.

15 Q. So you're bringing to the board's  
16 attention the area -- I started this  
17 cross-examination with the areas of concern and  
18 you indicated you didn't understand what I was  
19 asking you about.

20 A. I didn't understand your  
21 differentiation between areas of concern versus  
22 conclusions.

23 Q. Okay. So now I ask you based upon a  
24 Risk Identification Report and your testimony  
25 which seems to be modeling an identification of

1 the risks, whether or not your testimony is  
2 largely dealing with areas of concern?

3 A. Yes, I am concerned about the areas  
4 that I have brought to the board's attention. I  
5 really have a problem with the term areas of  
6 concern and conclusions because I'm not sure what  
7 you mean by those terms.

8 Q. Well, you haven't drawn any specific  
9 conclusion because you don't have any field tests  
10 or data to draw those conclusions upon, do you?

11 A. I haven't collected my own specimens  
12 or done my own borings, correct. I've had to  
13 rely on other people's from other reports.

14 Q. And some of those reports you're not  
15 sure whether the people who prepared the reports  
16 were ever even on the site and walked the site or  
17 took tests on the site?

18 A. That is true of the county report.

19 Q. Right.

20 A. Obviously Johnson Soils did walk the  
21 site. Obviously Bertin did walk the site. They  
22 have photographs from the site not taken from the  
23 sidewalk.

24 Q. And do you have any criticisms of  
25 their evaluations of their own boring tests and

1 such? Do you challenge their results in the  
2 borings that they took?

3 A. I believe I challenged it and  
4 pointed out what I perceived to be shortcomings,  
5 data gaps or flaws in last month's testimony.  
6 That was the Johnson report. I haven't talked  
7 about the Bertin Engineering report but I have  
8 some concerns about that as well.

9 Q. I understand. Once again, with  
10 regard to the data you assembled regarding  
11 epicenters and earthquakes and/or occurrences of  
12 earthquakes, you're not correlating the  
13 construction of this building as in any way  
14 having an affect on the occurrence of these  
15 earthquake epicenters, are you?

16 A. As I said before, no.

17 MR. ALAMPI: Chairman, I have  
18 nothing further. I'm not going to go into the  
19 same repetitive questioning. I'm satisfied.

20 THE CHAIRMAN: Okay. Thank you.

21 Any redirect, Mr. Lamb?

22 MR. LAMB: I have very few  
23 questions.

24 REDIRECT EXAMINATION

25 BY MR. LAMB:

1 Q. Mr. Cunniff, can you turn to the  
2 Palisades, the county Palisades Slope Stability  
3 Study, page 4?

4 A. Yes.

5 Q. On the third paragraph can you read  
6 the first two sentences?

7 A. This is in Section 1 under  
8 Background?

9 Q. Yes.

10 A. "The relatively steep slope possess  
11 potential risk associated with soil movement atop  
12 the bedrock surface as well as rock falls,  
13 et cetera. The stability of the area is further  
14 impacted by excavation and other activities  
15 associated with the development of properties and  
16 infrastructure in the vicinity of the Palisades."

17 Q. As that statements relates to this  
18 property, do you agree with that statement?

19 A. Absolutely, yes.

20 Q. On page 5, Section 2, Scope of  
21 Services.

22 A. Yes.

23 Q. I'd like you to look at subparagraph  
24 4. Could you read that, please?

25 A. "Perform field mapping of geologic

1 features, formations, soil/rock faults, walls,  
2 buildings, structures and hazards."

3 Q. Okay. The reference to field  
4 mapping, would that indicate an inspection of the  
5 various properties that are subject to this  
6 report when they use the word field mapping?

7 A. Yes. To take that thought further,  
8 that would indicate to me that they went on this  
9 property to investigate it.

10 Q. And in fact the recommendations on  
11 this is property No. 6, the same recommendations  
12 exactly are not on the other parcel, I think  
13 there's more than 20 other properties. Is it  
14 fair to say that each property has a different  
15 recommendation?

16 A. Yes. Some of them may have similar  
17 problems, so a few of them may have the same  
18 recommendation but they tailored -- each of the  
19 properties that they investigated, they tailored  
20 their recommendations specific to that property.

21 Q. Would that lead you to conclude that  
22 this is not a generic statement on property  
23 No. 6, it's tailored to the specific property?

24 A. Yes, I would support that statement.

25 Q. Okay. Page 7, Section 6, entitled

1 "Surficial Geology."

2 A. Yes.

3 Q. You've reviewed that; is that  
4 correct?

5 A. Yes.

6 Q. Okay. Do you generally agree with  
7 those -- the geological discussions in that  
8 report?

9 A. Yes.

10 Q. Now, there are in this report -- and  
11 you are -- you were not -- you're not an engineer  
12 which we've admitted five times, is that correct,  
13 a design engineer?

14 A. Correct.

15 Q. You have not been hired by the  
16 Galaxy to design a structures and make certain  
17 improvements to -- on this project because it's,  
18 is it fair to say it's out of your area of  
19 expertise, that design function?

20 A. I would say your statement is  
21 correct, I am not -- was not hired to design  
22 anything.

23 Q. Now, if you draw your attention to  
24 Section 10.

25 A. Yes.

1 Q. Developments of Acceptable Limits,  
2 10.1, can you read the first two sentences,  
3 please?

4 A. 10.1 is labeled Slope Stability.

5 Q. Right.

6 A. "Computerized modeling was made  
7 based on the development of the slope  
8 categorization protocol resulting in estimated  
9 factors of safety for varying site conditions."

10 Q. And the next sentence, please.

11 A. "Both STABL and" -- these are all  
12 caps -- "PLAXIS," so it's "STABL and PLAXIS  
13 computer programs were used to evaluate the  
14 stability of slopes."

15 Q. Now, Mr. Alampi asked you a question  
16 did you review the Bertin reports and you  
17 indicated you had some disagreement with the  
18 Bertin reports.

19 A. Yes.

20 Q. Is the Bertin reports or the Lisa  
21 Mahle-Greco Johnson Soil reports ever do an  
22 analysis of soil stability to the level that is  
23 the subject of the discussion in the county Soil  
24 Stability Study?

25 A. The reports do not indicate that.

1 Q. Okay. What other comments do you  
2 have with respect to Mr. Bertin's reports in  
3 general?

4 A. The Bertin Engineering report seems  
5 overly concerned with bedrock failure. I've said  
6 many times that I'm not -- that's not my biggest  
7 concern. The county report says there's always a  
8 chance of bedrock failure, it's unlikely. My  
9 main area of concern to use Mr. Alampi's  
10 terminology is a potential soil slope failure.  
11 And that's not nearly as well addressed as the  
12 reduced chance of rock slope failure is in the  
13 Bertin Engineering report. It seems --

14 Q. Does the Bertin report refer to  
15 surficial slope failure or any -- or terminology  
16 close to that as a risk?

17 A. I'm going to look very quickly at  
18 the headings.

19 My recollection was no, and my  
20 looking through the report it's still no.  
21 There's -- in fact there's notes -- at the end of  
22 the report in the last three or so pages of the  
23 report are construction precautions to take in  
24 different instances when you're close to the  
25 pipeline and when you're farther away from the



1 pipeline. And the general construction pipe --  
2 general construction precautions for the pipeline  
3 lists four things, none of which talk about slope  
4 stability. It's warning about the presence of  
5 the pipeline, it's putting up warning signs, it's  
6 vibration monitoring specifically and it's  
7 notifying Transco of construction activities.

8 Q. Is there any mention in that report  
9 to the best of your recollection of the potential  
10 problem of water channeling through the sewer --  
11 along the sewer pipeline on the upper portion of  
12 the property or the Transco pipeline itself that  
13 can cause soil instability?

14 A. No, there is no reference to that.  
15 There is a reference to the sanitary and the  
16 storm sewers as being present, but there is no  
17 reference to channelization of water or  
18 preferential migration of water.

19 Q. Okay. Now, you had mentioned the  
20 lesser concern for the portion of the pipeline on  
21 the lower portion -- the flatter portion of the  
22 property closest to River Road; is that correct?

23 A. Correct.

24 Q. That concern is from a geological  
25 standpoint?

1 A. Yes.

2 Q. Okay. That concern doesn't deal  
3 with any other pipeline issues that may be  
4 involved, just geologically slope saturation,  
5 steepness of slope, those factors?

6 A. Correct. It's less at risk because  
7 it's less likely to be exposed on the flat by a  
8 soil failure.

9 Q. And this board is being asked to  
10 grant a rear yard setback variance. They're  
11 asked -- the developer is requesting that the  
12 building being pushed closer to the slope and the  
13 developer is also asking that the developer be  
14 allowed to cut into the slope. What is your  
15 opinion with respect to that proposal as it  
16 relates to safety?

17 A. As proposed, that construction is  
18 less safe than if construction were limited to  
19 the road side flat portion of the property and  
20 maintaining some kind of setback between the  
21 structure and the toe of the slope to allow for  
22 run out as I described earlier of anything that  
23 may happen to roll down the slope or slide down  
24 the slope.

25 MR. LAMB: Nothing further, Mr.

1 Chairman.

2 THE CHAIRMAN: Ms. Gesualdi, did you  
3 have anything?

4 MS. GESUALDI: No.

5 THE CHAIRMAN: All right. From the  
6 public. Yes, sir, questions of the witness only,  
7 please.

8 JEREMY RABIN, residing at 7004 Boulevard East,  
9 Guttenberg, New Jersey, having been duly sworn by  
10 the Notary Public, was examined and testified as  
11 follows:

12 MR. RABIN: I'm the resident who has  
13 been living alongside this property, at one time  
14 the Galaxy actually leased this property so I  
15 have opportunities to be on the property. And  
16 initially after Applevue had purchased the  
17 property there was a period where the Galaxy was  
18 still allowed access to that property. I can  
19 tell you I was on the lower part of that slope at  
20 least two years --

21 THE CHAIRMAN: There is a question  
22 in there, right?

23 THE WITNESS: Yes. Yes.

24 MR. MUHLSTOCK: You can't frame a  
25 question like that and advise the witness about

1 facts that you may believe are true but are not  
2 questioned and there is no foundation, they're  
3 not questions. That's a statement.

4 THE WITNESS: Well, yes.

5 MR. MUHLSTOCK: You have to ask him  
6 questions of his knowledge, not what you're  
7 imparting to him. So, please, ask him questions.  
8 Don't place statements on the record.

9 MR. LAMB: If I can just make a  
10 general statement to help Mr. Rabin, he will be  
11 allowed a brief statement after this. Right now  
12 he's asking questions. When it's all over he can  
13 make some of this --

14 MR. MUHLSTOCK: He knows that.  
15 Everyone in the public knows that.

16 MR. LAMB: Okay. Maybe I'm just --

17 MR. MUHLSTOCK: The chairman said  
18 this is purely questions to the witness. Please,  
19 ask a question. What, where, how, why.

20 MS. RABIN: Would it be relevant if  
21 a witness to testify that there was puddles  
22 forming on that area of the slope two years  
23 before the drainage -- the test borings were  
24 done?

25 THE WITNESS: Yes.

1 MS. RABIN: And would it be very  
2 unlikely that the test borings caused that  
3 puddle -- that standing water if in fact  
4 witnesses could testify that that had been  
5 observed two years prior to the test borings?

6 THE WITNESS: Yes.

7 MS. RABIN: I can testify to that.  
8 Okay.

9 MR. MUHLSTOCK: Are you being called  
10 as a witness by anyone in this case?

11 MS. RABIN: It's -- I'm available.

12 MR. MUHLSTOCK: Not at this point.

13 THE CHAIRMAN: Stick to questions.

14 MR. MUHLSTOCK: Stick to questions.

15 THE CHAIRMAN: Not statements.

16 MS. RABIN: Okay. Well, that was a  
17 question.

18 THE CHAIRMAN: No, it was a  
19 statement.

20 MS. RABIN: Well, it had both in it.  
21 I'll agree to that.

22 We -- the building has been  
23 described as both a building and a retaining  
24 wall. The -- do you consider that the habitable  
25 floors which are made of wood and are the portion

1 in the back that would be above the slope, that  
2 that would be a suitable means of stopping a  
3 six-foot landslide?

4 THE WITNESS: I don't think a wooden  
5 wall is sufficient to stop a six-foot debris  
6 flow.

7 MS. RABIN: And what kind of weight  
8 would tend to be associated with a six-foot  
9 debris flow?

10 THE WITNESS: Many, many tons. It  
11 depends on how much material you're talking  
12 about. You know, is it one foot -- six feet from  
13 top to bottom, how many feet across, how many  
14 feet long. But a volume of soil that's six foot  
15 tall is many, many tons of material.

16 MR. RABIN: And that could contain  
17 boulders, it could contain tree stumps and trunks  
18 and things?

19 THE WITNESS: Anything that's on the  
20 slope now could come down with it, yes.

21 MS. RABIN: If the required 40 foot  
22 setback was honored and was used in this design,  
23 might that protect the habitable floors from much  
24 of that potential risk?

25 THE WITNESS: Yes. In fact that's a

1 recommendation. Setbacks in general are a  
2 recommendation of the county report for run out  
3 of debris and rock fall that comes down the  
4 slopes.

5 MR. RABIN: So in terms of the  
6 public, would you consider that putting a  
7 habitable floor against a potential debris flow  
8 area would be a detriment to the community?

9 THE WITNESS: I would say it's a  
10 detriment to the people in the structure. I  
11 would not want to be living on the other side of  
12 that wooden wall.

13 MS. RABIN: And if something  
14 happened to those people would it be a detriment  
15 to the town or the county?

16 THE WITNESS: Of course. If people  
17 get injured, yes.

18 MR. RABIN: And if in fact a debris  
19 flow were to take place either during  
20 construction or because of weakening from the  
21 construction that took place let's say a year  
22 afterwards, could that happen?

23 THE WITNESS: Yes.

24 MS. RABIN: So there could be some  
25 disturbance of the slope and then a year later it

1 might result in a flow that wouldn't have  
2 happened otherwise?

3 THE WITNESS: Yes. My concern is  
4 not strictly during construction. My concern is  
5 the final state that they leave the slope in post  
6 construction because there are notes in the  
7 reports about what to do to the slope. They talk  
8 about scaling or removing the loose rock,  
9 et cetera. That could all have an effect either  
10 intended or unintended on the slope in the  
11 future.

12 MR. RABIN: So if as a result of  
13 this the pipeline were threatened, potentially  
14 there was a percentage chance, whatever that  
15 would be of additional threat to that pipeline,  
16 would you consider that a detriment to the  
17 public?

18 THE WITNESS: Yes, increasing risk  
19 of damage to the pipeline is not a good thing for  
20 the public.

21 MS. RABIN: And if that pipeline  
22 were to rupture which the -- could certainly  
23 result in an ignition because of the sparks from  
24 the ripping metal, would that be a detriment, a  
25 substantially detriment?



1 MR. MUHLSTOCK: Is there going to be  
2 an objection to that? That's sustained.

3 MR. ALAMPI: I'm not --

4 MR. MUHLSTOCK: He's a geologist,  
5 Mr. Rabin, the man is a geologist. Please, save  
6 your questions -- save that question for  
7 Mr. Lamb's next witness.

8 MS. RABIN: Okay.

9 THE CHAIRMAN: If somebody drops a  
10 bomb, would that create danger?

11 MS. RABIN: It would create a  
12 detriment, that's why we don't drop bombs.

13 Okay. Mr. Alampi said that nobody  
14 is suggesting pounding next to the pipeline. You  
15 testified at the hearings, the previous hearings  
16 which then North Bergen approved that project,  
17 are you aware that at that time the proposal  
18 again in detail by Mr. Bertin and Ms. Greco was  
19 that they would be pounding telephone poles into  
20 the ground as close as 18 feet from the pipeline?

21 MR. ALAMPI: I'm going to object.  
22 There is no testimony to that effect.

23 MR. MUHLSTOCK: Not relevant.

24 MS. RABIN: 18 feet from the  
25 easement, I think that would be more accurate.

1 MR. MUHLSTOCK: Do you know anything  
2 about that, Mr. Cuniff? Do you know anything  
3 about that other project? You said on  
4 cross-examination you didn't.

5 THE WITNESS: What I was going to --

6 MS. RABIN: He testified to that  
7 project.

8 THE WITNESS: In 2011 this project,  
9 the prior hearing? Are you talking about the  
10 prior hearing?

11 MS. RABIN: Yes.

12 THE WITNESS: Yes, I did testify on  
13 that. That's when I generated that report, that  
14 five page report. I'll say this, this is what I  
15 know. At some point Applevue had changed out of  
16 concern for creating vibrations from a typical  
17 pile construction where they do pound them down  
18 to I think I first heard about it during my  
19 first -- during this remand to switch over to the  
20 auger piles which are much less vibratory in  
21 nature and then they're hollow and they get  
22 filled in place and left in place with concrete.  
23 So I am aware of the change from a typical driven  
24 pile to an auger pile. I don't remember when  
25 that change occurred but I remember you speaking

1 about that within this set of hearings.

2 MS. RABIN: I think everybody feels  
3 that the augering would be much safer but there  
4 was testimony given by Appleview and by Transco  
5 that perhaps at some distance from the pipeline  
6 which was undetermined they might stop augering  
7 and they might start pile driving.

8 MR. ALAMPI: There is no testimony  
9 to that. I object. I'm just not getting up,  
10 Chairman, because --

11 THE CHAIRMAN: Sustained. Your leg  
12 is hurting. I noticed.

13 MR. ALAMPI: Thank you.

14 MR. RABIN: Well, you can check the  
15 transcripts on that.

16 There was testimony about a segment  
17 of this pipe considered by Transco to be part of  
18 the same segment that Appleview is on that near  
19 or around Tonnelle Avenue, perhaps a mile from  
20 here, that the pipe was damaged, dented by a  
21 piece of diabase rock from sitting on it for the  
22 last 50 plus years. And that there was a crack  
23 and when the rock was removed there was a leak in  
24 the pipe. Does that raise any concerns for  
25 you knowing that the pipe on this property is the

1 same age?

2 THE WITNESS: Yes. I mean, the  
3 segments had to be constructed at approximately  
4 the same time and maybe a few months earlier or  
5 before. After hearing the pipeline expert  
6 testify about the construction practice which is  
7 dig the trench, screen the soil, put the pipe in  
8 and then replace the native soil after it was  
9 screened for large fragments back in as backfill,  
10 I would venture that that's how the rock got in  
11 by Tonnelle Avenue into the backfill because it  
12 escaped the screening process or whoever was  
13 doing construction management just happened to  
14 miss it when it was put in the excavation and  
15 perhaps the same thing with the same work crew  
16 could occur anywhere along the length of the  
17 pipeline. They didn't notice it until they  
18 noticed an anomaly of their analysis of the  
19 pipeline.

20 MS. RABIN: And all these sections  
21 of the pipe in this segment were described as  
22 having no anomalies previously until there was  
23 this leak and then at the next hearing they  
24 described the dent as being there.

25 MR. MUHLSTOCK: Mr. Rabin, the

1 question goes way, way, way beyond anything that  
2 came out on direct or cross. I mean --

3 MS. RABIN: I don't think so.

4 MR. MUHLSTOCK: Well --

5 THE CHAIRMAN: You wouldn't.

6 MR. MUHLSTOCK: You should check the  
7 transcript.

8 MS. RABIN: Okay, I did.

9 MR. MUHLSTOCK: No, I'm talking  
10 about the testimony tonight that Mr. Lamb  
11 elicited from this witness.

12 MS. RABIN: I was talking about the  
13 Transco testimony about the leak.

14 MR. MUHLSTOCK: You're limited --

15 THE CHAIRMAN: You're limited to  
16 what he testified on.

17 MS. RABIN: Given that the pipe  
18 comes down the slope with a lot of weight, I  
19 assume that that pipe is pressing down on itself  
20 to some degree while its also -- or potentially  
21 could be pressing down on itself coming down  
22 there. If there were to be rocks somewhere in  
23 there, might that create a more dangerous  
24 situation?

25 THE WITNESS: I mean if there's

1 rocks where there shouldn't be, that's a  
2 situation that shouldn't exist to begin with. As  
3 to whether it's more risky than what happened on  
4 Tonnelle Avenue or not I can't really say.

5 MS. RABIN: Okay. Okay. And if in  
6 fact there was a pipe that was in some condition  
7 similar to the one on Tonnelle, would potentially  
8 a non-threatening construction perhaps pose a  
9 threat under those circumstances such as lesser  
10 vibration or other stresses from construction?

11 MR. MUHLSTOCK: There is no  
12 foundation. It's way beyond the scope --

13 MS. RABIN: Okay.

14 MR. MUHLSTOCK: -- of that which was  
15 asked on direct. It's hypothetical. The witness  
16 doesn't have any foundational background.

17 MS. RABIN: Okay, I'll withdraw it.

18 MR. MUHLSTOCK: I mean --

19 MR. RABIN: As a closing area you  
20 talked about the appearance of erosion that you  
21 had observed and the references to erosion in the  
22 Bertin and Greco report about rocks, tree falls  
23 and things of that nature. Having lived on this  
24 site I've made observations and recorded  
25 observations --

1 THE CHAIRMAN: What's the question?

2 MS. RABIN: Here's the question. I  
3 have here a few photographs taken over a period  
4 of years of this site, and I'd like to know if  
5 these would be helpful to you in determining the  
6 potential progress of erosion on the site.

7 MR. MUHLSTOCK: He's already  
8 testified through Mr. Lamb's questioning as to  
9 what his opinions are based upon his knowledge.

10 MR. RABIN: Yes, these are based  
11 on --

12 MR. MUHLSTOCK: Are you trying to  
13 give him additional information that he's not  
14 aware of and hasn't considered at this point?

15 MS. RABIN: Yes. I'd like to give  
16 this to the board as well. This is a series of  
17 photographs of the site from 2005 to the present  
18 that document --

19 MR. MUHLSTOCK: You can bring --

20 MR. RABIN: -- conditions on this  
21 site.

22 MR. MUHLSTOCK: You can bring that  
23 out when you give your closing statement. It's  
24 inappropriate at this point to give to this  
25 witness. He hasn't considered it.

1 MS. RABIN: Well, if you were to  
2 look at these would it be relevant --

3 MR. MUHLSTOCK: Mr. Rabin --

4 THE CHAIRMAN: Mr. Rabin --

5 MR. MUHLSTOCK: -- it's  
6 objectionable question. It's an objectionable  
7 question at this point.

8 MS. RABIN: Well, we do have an  
9 expert here who is remarkably capable of  
10 analyzing it.

11 MR. MUHLSTOCK: He's a geologist who  
12 gave his testimony based upon what he already  
13 testified to. You can't add at this point by  
14 throwing a lot of other information in front of  
15 him.

16 THE CHAIRMAN: I don't know where  
17 you're going.

18 MS. RABIN: I think there's a  
19 suggestion that, you know, maybe I've spoken more  
20 than you would like. A picture is worth 1,000  
21 words.

22 MR. MUHLSTOCK: No, anything  
23 appropriate is what -- you can bring that out  
24 when you testify at the end of the hearings, not  
25 through this witness.



1 THE CHAIRMAN: You can ask questions  
2 about his testimony. Period.

3 MS. RABIN: But since safety --

4 THE CHAIRMAN: No buts.

5 MR. RABIN: Safety is the parameter  
6 that we are having these hearings on and here is  
7 an expert we're losing the chance --

8 MR. MUHLSTOCK: You can bring it out  
9 when you testify at the end of the hearings in  
10 the public portion --

11 MS. RABIN: But he wouldn't be able  
12 to respond.

13 MR. MUHLSTOCK: -- you can bring it  
14 out. Thank you.

15 THE CHAIRMAN: Okay. Has any other  
16 member of the public wish to ask questions of  
17 this witness on this testimony?

18 (No response.)

19 THE CHAIRMAN: Then I'm going to  
20 close the public portion. And we're just about  
21 10 o'clock.

22 Gentleman, we need to set our next  
23 final meeting.

24 MR. ALAMPI: Yes, I think that we're  
25 on Mr. Lamb's case. I know that he wishes to

1 call Mr. Kuprewicz.

2 THE CHAIRMAN: Yes.

3 MR. ALAMPI: I spoke with him at an  
4 earlier time anticipating that these meetings  
5 would go through the other witnesses and he would  
6 want to have a full meeting night so you wouldn't  
7 have to call him two or three times. But I think  
8 now the time has arrived with an October meeting  
9 date that he can give enough notice to his  
10 witness. I appreciate he's from the west coast.

11 THE CHAIRMAN: Agreed.

12 MR. LAMB: I appreciate that. I do  
13 have his schedule. I just want to say -- we  
14 haven't -- what we do is we give him all this  
15 information and transcripts and then we talk to  
16 him and see if he can be helpful. I'm not going  
17 to bring him back if I don't think he can add  
18 anything.

19 THE CHAIRMAN: Okay. Fair enough.

20 MR. LAMB: So right now I will have  
21 discussions and I'd like to set it up for him. I  
22 would let you know if for some reason I don't  
23 intend to bring him at least, at least ten days  
24 before the hearing.

25 MR. ALAMPI: And when will that

1 hearing date be?

2 MR. LAMB: And I want to know if Mr.  
3 Alampi intends to bring back any additional  
4 witnesses.

5 MR. ALAMPI: I don't think so.

6 MR. LAMB: Okay.

7 MR. MUHLSTOCK: Do you have any  
8 additional witnesses other than Mr. Kuprewicz at  
9 this point?

10 MR. LAMB: No. So the next meeting  
11 is either Mr. Kuprewicz or the end.

12 (Discussion off the record.)

13 MR. LAMB: So I'm not bringing back  
14 Mr. Cunniff.

15 THE CHAIRMAN: Yes, that's correct.

16 MR. LAMB: Thank you, Mr. Chairman.

17 THE CHAIRMAN: All right. Ladies  
18 and gentlemen, then the next meeting on this  
19 application will be on Tuesday, October 23rd at 7  
20 p.m. in these chambers. You will not receive new  
21 notice, this is your notice I'm giving you now.  
22 For any neighbors that you may want to inform,  
23 please let them know as well.

24 All right. The Chair will entertain  
25 a motion for adjournment.

1 MR. FERNANDEZ: Motion.

2 MR. BASELICE: Second.

3 THE CHAIRMAN: Moved and seconded  
4 all in favor.

5 (Chorus of ayes.)

6 THE CHAIRMAN: Opposed.

7 (No response.)

8 THE CHAIRMAN: Meeting stands  
9 adjourned.

10 (Time noted: 10:03 p.m.)

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CERTIFICATE

I, CELESTE A. GALBO, a Certified  
Court Reporter and Notary Public within and for  
the State of New Jersey do hereby certify:

That all the witnesses whose  
testimony is hereinbefore set forth, was duly  
sworn by me and that such is a true record of the  
testimony given by such witnesses.

I further certify that I am not  
related to any of the parties to this action by  
blood or marriage and that I am in no way  
interested in the outcome of this matter.

In witness whereof, I have hereunto  
set my hand this 12th day of October 2012.

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CELESTE A. GALBO, CCR, RPR, RMR  
License No. 30X100098800