

## **1. FLAG SALUTE & CERTIFICATION OF COMPLIANCE**

Chairman Yechiel Herzl called the meeting to order at 6:00 p.m. with the Pledge of Allegiance and Ally Morris read the Certification of Compliance with the NJ Open Public Meetings Act:

“The time, date and location of this meeting was published in the *Asbury Park Press* and posted on the bulletin board in the office of the Township of Lakewood at least 48 hours in advance. The public has the right to attend this meeting, and reasonable comprehensive minutes of this meeting will be available for public inspection. This meeting meets the criteria of the Open Public Meetings Act.”

## **2. ROLL CALL**

Mr. Garfield, Mr. Stern, Mr. Flancbaum, Mr. Herzl, Mr. Isaacson, Mr. Meyer, Mr. Gonzalez

## **3. SWEARING IN OF PROFESSIONALS**

Mr. Terence Vogt, P.E., P.P., C.M.E. was sworn.

## **4. MEMORIALIZATION OF RESOLUTIONS**

- 1. SP 2326 Shiras Chaim Inc**  
1400 Pine Street & 279 Albert Ave Block 854, Lots 1 & 3  
Preliminary and Final Major Site Plan for a school addition

A motion was made and seconded to approve the resolution.

- 2. SP 2288 Congregation Machzikei Hadath**  
347 Ocean Avenue Block 246, Lot 38  
Preliminary and Final Major Site Plan for a synagogue (amended resolution)

A motion was made and seconded to approve the resolution.

## **5. PUBLIC HEARING**

- 1. SP 1957A Beth Medrash Govoha of America**  
Forest Ave & Carey Street Block 63, Lots 1 & 4  
Extension of a Preliminary & Final Major Site Plan for a school campus

Mr. Adam Pfeffer, Esq. said this was previously approved in 2008. It was in litigation and it has already received two one-year extensions. This is a large project and it is taking some time to get everything completed properly.

Mr. Brian Flannery, P.E., P.P. requested a five-year extension based on the comprehensiveness of the project.

A motion was made and seconded to approve a five-year extension.  
All were in favor.

A motion was made and seconded to approve the resolution.  
All were in favor.

**2. SP 2310 The Parke at Lakewood, LLC**

752 & 688 Cross Street Block 524; 524.23, Lots 2.03 & 77.02; 1  
General Development Plan for a Planned Unit Development

Mr. Garfield and Mr. Herzl left the meeting.

This is a continuation from the June 5, 2019 meeting.

Mr. Schneider recollects from the last meeting was that Ms. Donato was going to present the testimony of a planner and of a hydrogeologist. He would like to note that much of the hydrogeologist has submitted in the past was done in the context of the CAFRA application where there was a whole range of issues looked at in terms of stormwater management, groundwater mounding, retaining wall and a whole variety of those related things and that was reviewed by both sides by the NJDEP which issued a CAFRA permit and that CAFRA is now an appeal and the court will decide whether it was proper. His request is they do not spend the board's time going over those same issues and that those are appropriate issues for CAFRA and there is no reason to spend hours rehashing those issues that are under the NJDEP's jurisdiction.

Ms. Donato said this is an issue on which the position of the applicant and the position of the Fairways is diametrically opposed. The CAFRA application certainly did review stormwater but what is before this board is a GDP application and there is a specific provision in the ordinance that a stormwater plan is a mandatory component of the GDP. There is concurrent jurisdiction to review stormwater management, it is mandatory for this board to do so by the GPD ordinance, by RSIS and by the requirement of findings the board may have that are based in the MLUL that this applicant has a burden of proving that this development will not have an unreasonable adverse impact upon the area and their attorney rightfully ruled on a legal basis at the very outside of these proceedings that the question of adverse impact was something they had to evaluate. So the question of stormwater management is squarely, properly and will be on the table and they would be presenting that testimony this evening.

Mr. Vogt is not arguing that stormwater management is a component of the GDP. That being said, what is looked at to this point is more of a concept level. They are not going to do detailed reviews of any designs unless or until they get site plans and/or subdivisions plans for this project. He has no problem hearing testimony from the expert, but they are not in any position to say whether the stormwater design is right or wrong as they don't have the design.

Ms. Donato said that is one of the major deficiencies they would point out. It is something identified in the ordinance, it is a requirement. She thinks there has been this presentation that would like this board to believe that the GDP application is really just this casually little presentation of a big concept plan and to the contrary, it sets the number of units, it vests them with rights against changes in zoning, it gives them the right to come back before the board for site plans and subdivisions and if the board decides this plan doesn't work anymore because the stormwater basins need to be larger, the board has already vested them with those number of units and that is the essential dilemma this board faces and that they intend to address. She understands it may have not been reviewed by the engineer for the board, but she thinks that is a mistake and they will present to the board what the ordinances states and what they believe is really some various serious issues with the stormwater plan.

Mr. Schneider said there was a stormwater management report prepared and he concurs with what Mr. Vogt stated.

Mr. Jackson said they are governed by the MLUL as well as the ordinance and one of the required contents of the application is to provide a stormwater management plan for the method of controlling and managing stormwater and an environmental inventory including a general description of the vegetation, soils, topography, geology, surface hydrology, climate and cultural resources of the site, existing manmade structures, features and the

probable impact of the development on the environmental attributes of the site. He thinks Ms. Donato has every right to bring an expert to address those points and the board has to determine based on what that expert says and what everybody else says these criteria can be satisfied.

Ms. Donato said Geoffrey Goll, specializing in stormwater management who is with Princeton Hydro as well as a professional planner, who will be testifying in regard to general planning issues involving this application and the standards contained in the GDP ordinance and in the planned development ordinance that was adopted in 2017.

Mr. Geoffrey M. Goll, P.E., civil engineer specializing in stormwater management, geotechnical engineering and civil engineering was sworn. He is the president of his firm, Princeton Hydro, which has been in business for 21 years.

Ms. Donato asked if he has any specialty in civil engineering.

Mr. Goll said he does, one of the specialties is stormwater management as well as geotechnical engineering.

Ms. Donato asked him to describe his educational background.

Mr. Goll said he has a B.S. in civil engineering from Rutgers University and a Masters of Engineering from the University of Wisconsin and a Masters of Engineering Management.

Ms. Donato entered Mr. Goll's curriculum vitae as exhibit D-6.

Mr. Schneider accepts Mr. Goll as to his qualifications.

Ms. Donato asked Mr. Goll to explain geotechnical design.

Mr. Goll said geotechnical engineering is essentially the engineering of soils and rock for the purpose of creating manmade structures, stabilizing slopes, constructing earthworks, for example building foundations deep and shallow. Geotechnical engineers work on dams and slope stability analysis for those dams.

Ms. Donato asked if he has testified before planning and zoning boards in New Jersey and qualified as an expert in civil engineering, stormwater engineering and geotechnical engineering.

Mr. Goll said he has.

Ms. Donato asked if he has also qualified to testify in the Superior Court of New Jersey.

Mr. Goll said he has.

Ms. Donato asked where else he has provided testimony.

Mr. Goll said he has testified before the utility board in Vermont, he has also testified in several townships in Pennsylvania.

Ms. Donato asked if he represents developers as well.

Mr. Goll said yes, they represent a range of non-governmental organizations, environmental organizations, and various developers.

Ms. Donato asked if he does any work for any municipal agencies in the state of New Jersey.

Mr. Goll said yes, they have represented the municipality of Princeton, Reddington Township and Bethlehem Township,

Ms. Donato asked what role he had with respect to the stormwater management regulations that the state of New Jersey adopted pursuant to the clean water act.

Mr. Goll said they are often on professional committees and volunteer organizations. For example, some of the non-governmental organizations ask them to sit on the committees to comment and provide input on the stormwater management regulations.

Ms. Donato asked if he is familiar with the stormwater management regulations that governed major developments in the state of New Jersey.

Mr. Goll said yes.

Ms. Donato asked if this project qualifies as a major development.

Mr. Goll said yes.

Ms. Donato asked the board to accept his qualifications as a civil engineer specializing in both stormwater management and geotechnical.

Mr. Jackson asked if the field of engineering recognizes a specialty per se in those fields and is there any kind of credential or licensure associated with that.

Mr. Gall said no, it is a well it's interesting. You should ask is a lot of times...

Mr. Jackson said the answer is no, thank you. He would recommend that he be accepted as an expert in the field of civil engineering and the board can weigh consider his credentials, but he doesn't know if you can recognize an expert with a specialty in stormwater management etc. per se because there is no such specialty in the field of engineering apparently, I mean if there were that would be different

Mr. Goll said not a certified specialty.

Mr. Jackson is certainly not diminishing your experience or extensive credentials in that field. He just does not want to define the expert per se.

Mr. Stern said the board would recognize him for all of his governmentally acknowledged expertise.

Ms. Donato disagrees on the position that Mr. Jackson has taken. She asked if Mr. Gall has ever been qualified in geotechnical engineering

Mr. Gall said boards have recognized him for that, tes.

Ms. Donato asked about stormwater.

Mr. Gall said yes.

Ms. Donato thinks that the fact that there is not a certification does not mean he's not an expert. She just thinks he has a much broader expertise than simply general civil engineering. She asked if there are certain things a general engineer cannot do with respect to soils or anything of that nature.

Mr. Gall said yes, and actually she is mentioning a good point because one of the things they did not talk about is his professional engineering license. He is a licensed professional engineer in the state of New Jersey as well as seven other states but professional engineering when you get licensed, Ms. Donato is correct, it is a general civil engineering license for professional engineering. But as far as the engineering practice is concerned, you are supposed to be focusing, you have to know your limitations in terms of expertise and experience. So, for example, even though he is a professional engineer, he would not do electrical engineering or mechanical engineering and those kinds of things.

Ms. Donato asked what documents and materials he reviewed in connection with his testimony this evening.

Mr. Gall reviewed the planning and development ordinance, GDP requirements. He reviewed the submitted documents by the applicant which are there are many that are posted on the municipal website. He also reviewed prior stormwater designs for the Fairways at Lake Ridge development, including the prior to DEP permit that was issued back in the 90's as well as a final major site plan that was prepared by both prepared by Lynch, Giuliano and Associates. He also reviewed the CAFRA permit application and those materials when they were submitted. To clarify, the permit application was initially denied but the permit was issued after a negotiated settlement as he understands it. He also completed site walks on the perimeter of the property, looked at stormwater inlets and tried to get himself familiar with the drainage features of the site.

Ms. Donato asked if he reviewed the 2017 CAFRA permit filed by GDMS, the entity associated with the current applicant before this board.

Mr. Gall said that is correct.

Ms. Donato asked him to give a site description relevant to what he will be presenting.

Mr. Gall said the site was historically used as a sand and gravel mining operation. According to the environmental impact statements submitted by the applicant, there was also agricultural uses on portions of the property. It was basically mining extraction likely due to the excellent nature of the sand and gravel for road and construction materials. He went through and reviewed historical aerial imagery going back to the 1930's and it looked like, as early as 1931, the site was starting to be used as a sand mining operation. He went through the other photographs, in 1972 and 1986, their mining in the area of where the landfill is now which is essentially west of the site and by 1995, the mining operation, at least on the aerial photographs, appeared to have slowed down and areas had begun to revegetate which he assumes are the same tree save areas when they overlay them. He reviewed the current elevations, even as a golf course it illustrated the topography that was created during the mining operations. The ponds are also there and in his professional opinion based on his opinion of soils in the area and other information, that those ponds are essentially exposed, the exposed regional groundwater table.

Ms. Donato said the applicant submitted an environmental impact statement in the 2017 CAFRA regarding soil types. She asked if he could give an overview of the soil types and how they affect what is being proposed.

Mr. Gall said because it was a mining operation, most of the soil structures when they are mapped, you are really looking at the top 60" or so, so when you do a mining operation and you remove the soil, you essentially remove the different soil types. There were soil types of that are indicative of \_\_\_\_\_ series and are very granular material, course grained representative of material that is actually very well used for road and construction

material. It also can tend to be loose, it is highly erodible, and it also can be used for structural support for construction.

Ms. Donato asked if there are stability concerns with the type of soils that exist on the site.

Mr. Gall said yes, if the materials are not placed in a correct manner, they can be somewhat unstable if not compacted appropriately.

Ms. Donato asked him to describe the GDP application he reviewed.

Mr. Gall said he reviewed the applicant's materials. There are 556 residential units proposed and as he understands while there are no current basements proposed they are allowed and there is a potential total of 1,112 residential units. There are also four proposed community buildings and they will be reusing the existing clubhouse which would remain. The stormwater components based on the stormwater management plan that he reviewed consist of three groups as what the applicant's engineer identified as A, B and C. Basin A consists of an infiltration basin, basin B consists of two hydraulically connected basins. Basin C consists of five hydraulically connected basins and what they mean by hydraulically connected is that they have pipes between them and so that water can flow freely back and forth between those basins and function essentially as one basin. The other thing that is interesting, they are going to be equipping each unit with a seepage pit. A seepage pit is a subsurface concrete structure that is perforated so when water goes into it, it can then permeate out through the holes into the soil and if the soils and groundwater were appropriate, they can then infiltrate into the ground and recharge groundwater. One of the other things to note, there is a 48" diameter pipe that comes into the site from the Fairways development which is a very large structure. In reviewing the applicant's conditions survey, the survey stops just over the property line and it does not give an indication of what that 4 ft diameter pipe is draining. One of the things he thinks is important that even though this is a concept plan the board has to decide based on something is real and so that when this board approves 556 units, they know those units can be built. That is something within the board's purview and understanding how they propose to construct this site is highly important. This is a highly engineering site, there a lot of bells and whistles associated with making this site work for the number of units being proposed. For example, there are all of the detention basins mentioned and he did not even go into the underground subsurface infiltration basins that are also being proposed for some of the other community facilities on the site. There will also be 556 infiltration pits that would need to be maintained and who would maintain them which they will talk about later. There are retaining walls on the site. Listening to prior testimony, the applicant's engineer discussed the fact that they are not sure what the retaining walls are, they're not sure where they are going to be, this is a concept. But in fact, they do not want to relive the CAFRA application, but the CAFRA application essentially or at least the settlement basically mimics the layout albeit some small differences although important ones.

Mr. Jackson said he commented that it is the board's purview to consider the architectural components and the feasibility of building, it sounded like he was referring to structural engineering the way a retaining wall may be built. He is looking at the elements in the GDP and he does not see that. He thinks the board should be worried about planning but the construction and whether it can be engineered and built in a construction standpoint, he really does not believe that to be the board's worry.

Mr. Gall understands and he will be focusing specifically on the ordinance items and discussing what he believes is deficient and why.

Ms. Donato would like to clarify that the use of the idea that this is a concept plan is really a misnomer. It is a general development plan. It is the master plan of the site which then dictates the future, so the board needs to know because it vests the developer with the right to the number of units if they were to grant this GDP approval. The ordinance is quite specific, it is supposed to be complete density which would mean not just the units...

Mr. Jackson interrupted and asked her to please proceed. This is not the opportunity to state the case or make an argument.

Ms. Donato argued that he interrupted the witness.

Mr. Jackson has every right to do so when the witness instructs the board as to what is within their purview or not, he has every responsibility to clarify that and he believes he agreed with what he said.

Ms. Donato does not believe he agreed, and he thinks there are ordinances that governs. He asked if he was speaking as to whether the buildings could be constructed on this site.

Mr. Gall said he was not talking about the architectural or structural components of the building and the buildings themselves. In order to fit the 556 units, they need to significantly regrade the site. One of the things he wanted to point out to the board is his first exhibit which is a retaining wall exhibit.

Ms. Donato said a thumb drive was provided to the board secretary. She asked what that drive contains.

Mr. Schneider has no objection to the exhibit.

Mr. Gall said there is a group of documents. The first exhibit, D-7 is a retaining wall layout. Exhibit D-8 is the overall proposed GDP plan with cross section locations. Exhibit D-9 is cross sections as identified on the prior cross-section layout. Exhibit D-10 is a colored 3-D prospective rendering of cross section B as identified on the prior layout. Exhibit D-11 is a closeup of the northeastern area of the golf course by the large pond that shows the existing topographic and property boundaries and the proposed property boundaries and building layout. Exhibit D-12 is sheet 13 of 48, preliminary and major subdivision, the Fairways at Lake Ridge, grading and utilities drainage plan, last revised July 2, 1997 NJDEP permit #1514-90-0005.5 and stamped July 17, 1997. Exhibit D-13 is sheet 3 of 18 final plat major subdivision section 6, the Fairways at Lake Ridge, grading and utility plan, last revised November 4, 1997, also prepared by Lynch, Giuliano and Associates. Exhibit D-14 is the land use plan prepared by Dynamic Engineering last revised January 4, 2019 and it identifies specific lots with front yards setbacks less than the ordinance allows. Exhibit D-7 is a depiction where they have highlighted the locations of retaining walls. To be clear, this planned view they are looking at was from the CAFRA application. The layout is nearly identical other than some changes in front yard setbacks and some other minor details that essential shows the site as is. The red highlights are where they were able to find the location of retaining walls that are to be proposed to be constructed on the site. When you add all of the retaining walls up together, it totals around 20,648 linear feet or 3.91 miles of retaining wall.

Mr. Meyer asked if that is an exact number as it seems like some of the walls are going through properties.

Mr. Gall said these were outlined from the plan.

Ms. Donato said there are concerns about that which will be addressed. She asked why there are almost 4 miles of retaining walls.

Mr. Gall said in order to accommodate the homes and to construct the site, because of the fact that this was a sand mine and a golf course in a closed depression, they needed to raise the elevations not just to level out the streets and the lots but also to help promote drainage but also to be able to place the number of homes that they have on this site in order to avoid things like the tree save areas or the property boundaries. As the board can see, some of them have these long little appendages. For example, on the northeastern basin adjacent to the Fairways there are two closely spaced lines which are retaining walls built so that someone can drive down into the basin to access the basins to maintain them.

Ms. Donato asked if the fill has anything to do with basement apartments.

Mr. Gall said yes, in order to promote drainage and to elevate the buildings and basements above the elevations where the stormwater management features will be, they need to elevate the site in order to be able to raise the buildings and basements out of potential groundwater conflicts.

Ms. Donato asked him to highlight with respect to the one red section that runs along the Fairways boundary.

Mr. Gall said that is a stormwater management basin, a recharge basin.

Ms. Donato asked what the heights of these walls are proposed to be.

Mr. Gall said that is something he will get into on the next exhibits. He knows there was testimony that they have not gone into the design of the retaining walls and not a lot of thought went into them. Well, in the CAFRA application, a lot of thought went into them. The detail on the top left is adapted from the detail of the retaining walls, which is essentially a typical cross section of a retaining wall. There are certain labels to help explain, one is the modular block label which is the gray on the left side of that detail is something that when you are driving by a modular block wall, it is something that you see. It is an architecturally looking textured type of feature. The lines that actually extend horizontally to the right are geogrids. Because those modular blocks are just laying on the face, they cannot stand up on their own. You cannot just stack them and put soil behind them. The wall has to utilize the soil behind it in order to make the entire thing one large structure and be structurally sound and not fall. Basically, the assumption is the length of those geogrids are about 80% of the height of the wall. So, if there is a 10 ft high wall, generally the geogrid extends 8 ft.

Mr. Stern asked what they are made of.

Mr. Gall said the geogrids are made out of a high strength plastic and are non-degradable. They basically look like a net except they are very stiff. What happens is when you have a granular soil that you place between them and there is tension place on it, once you place the fill and the wall in, there is a little bit of tension that is applied naturally just from the fill compacting and exerting on the face of the wall. The geogrid actually integrates with the soil, so the microscopic soil particles actually interact with that geogrid and lock it all into place so essentially while you have a geogrid, you have a large rectangular cross section structure of a wall. On the right of that, there is a slope. It is a slope line with a dark brown color on the lower right with the fill on top of it. There are two ways to build these walls. You can drive sheet pile to protect the workers if anything is over 4 ft in height you need to provide protection for people in an excavation and you cannot have vertical heights of walls or the soil will collapse. For a granular material, generally you are dealing with at least a 1.5 to 1 vertical or a 2 to 1 slope which is usually the rule of thumb so that when the workers are down there placing the material, it does not collapse on them. This will become very important in the next plan he will show the board. One of the things not in his purview is traffic but one of the things as he understands it is that the number of homes is really impact the traffic issues that are of concern. These many homes could not be built if they did not have these retaining walls. If they did not have these walls, they would have had more gradual slopes, for example around the tree save areas which are proposed now to be boxed in with retaining walls. You would have to have sloped areas around the detention basins which would further knock out more homes so the intensity of this development would be much, much less. As he said, it is a very manufactured, engineered site and there a lot of pieces going on which are required in order to put this project together. It is complicated. The filling of the site and the retaining walls are required not just to accommodate the homes but to accommodate basements and presumable basement units as he has listened to the testimony and they need to elevate it above not only groundwater but able to accommodate the drainage features and get the water to drain positively down to these detention basins.

Ms. Donato asked how the tree save areas came about and how they are protected under the original CAFRA approval.

Mr. Gall said that is not an area of expertise but as he understands it the tree save areas are sort of no-fly zones. As an engineer you have to design so you are not impacting those tree save areas that are supposed to be preserved in perpetuity. If the board looks at the drawing, there is a big blob of a gray tree save area with detention basins on either side. They needed to put in those retaining walls in order to create a separate between the basins and the tree save areas. If there were no retaining walls, you would see more of a sloped area going down to the detention basins.

Mr. Stern questioned what the downside of is in having these retaining walls.

Mr. Gall said retaining walls are good, but it is like carrots, you can only eat them in moderation. A lot of retaining walls, if you have 4 miles of retaining walls, this homeowner's association or whoever is going to be taking care of these walls are going to have to make sure that they are maintained in perpetuity. Some of these retaining walls are relatively high as he will be discussing, they are in backyards of these homes. He is sure there will be fences up as required by code but also like any structure, they do not last forever. Just like stormwater pipe, the detention basins themselves, even homes do not have an infinite life cycle and at one point these walls will have to be maintained and either pointed up or replaced at one point depend on how they fair over the years. If a typical life span of a civil infrastructure type of project like a retaining wall could be anywhere from 50 to 80 or 100 years but those walls will still need to be maintained at one point. It is just a lot of walls.

Mr. Stern asked what he trying to accomplish in explaining the extent of these proposed retaining walls.

Mr. Gall said it is something that in the long term almost 4 miles of retaining walls is a lot to maintain. That with the detention basins is how they are meeting their density requirements for this project.

Ms. Donato is glad Mr. Stern is asking these questions because it goes to the heart of what they want to address in terms of the criteria for the GDP, the standards of the planned development and the fact that this is a community that is being presented as having fee simple lots. However, what Mr. Gall is trying to point out, they have all of these common area requirements with almost 4 miles of walls and they entail expenses etc. that's what he is trying to raise which directly relates to the ordinance requirements and the standards in the ordinance for having a homeowner's association, having a declaration of covenants and restrictions.

Mr. Gall said he going to the next exhibit which is the GDP project layout with the cross-section locations.

Ms. Donato said that is exhibit D-8.

Mr. Gall said that is correct. He wants to shed a little light on the layout of the project. A lot of what they have been talking about in concept in plan view in terms of the layout of the lots and how this whole development circulates but he also wanted to talk on the vertical aspects of this development and what the impacts, as he understands it, are of a concern in terms of a visual. On the left side of the plan, there is a blue line labeled Section A which is through a proposed detention basin. Section B illustrates the profile from the Fairways development into the proposed development. Section C goes through the proposed basin into the proposed development and Section D shows the cross section that extends into a detention basin and a tree save area. When you look at retaining walls and retaining structures, they are not just lines on the paper. There is that depth to them as previously discussed. There is a geotextile fabric that generally goes 80% into the slope so a 10 ft high wall is not a linear line when you look down at it, it is 8 ft wide. Looking at exhibit D-9, Section A, if you look at the top left, they overlaid in this case the property boundary is coincident with the township boundary.

Ms. Donato asked if that is the boundary line of Toms River or Jackson.

Mr. Gall believes it is Jackson Township. When you look at the line on the plan for the retaining wall, it makes sense. It is on the inside of the property, just inside the property.

Ms. Donato wanted to clarify that it is the Toms River border.

Mr. Gall said below that shows the proposed elevations of the stormwater basin that is to be constructed. In order to facilitate this basin, they need to put a retaining wall essentially all the way around it. There is a ramp that goes down into it. If you look at the left side, just below where it says proposed stormwater basin, you'll see different hatching and you'll also see the township line coincident with the wall. In order to build this 25 ft high wall next to the basin they are going to need 80% of that so they will need somewhere in the order of 20 ft of width in order to construct at least a modular block wall which was proposed in their CAFRA application.

Mr. Stern asked if they own that land or if it is over the township line.

Mr. Gall said as he understands, they do not own that land. They did not propose what he drew there to be clear. That is their interpretation if they are going with what they proposed as modular block walls, in order to construct them, they are going to have to extend out across the property boundary.

Ms. Donato said that looks to be residential lots.

Mr. Gall said there is a triangular piece on the end of it. He will admit, where it says limit of excavation, they could potentially drive sheeting to potential protect the workers and build that wall. Regardless, the main structure of that wall, if they were to build a modular block wall, would extend off the property based on the drawing layout they have.

Mr. Stern asked who provided the plan shown on exhibit D-7.

Mr. Gall said the underlying plan was prepared by the applicant's engineer. The elevations proposed are based on their existing conditions survey and their proposed elevations on their plans. His professional opinion is the width of that retaining wall that will be required. Moving along to Section B shown on exhibit D-9, the board will see that there is the existing golf course on the top, the rectangle on the top represents the home on the Fairways property and what they have shown is the Fairways open space width on their property and on the left side is the 75 ft perimeter setback required per ordinance. The fill that they would be required to bring this up to grade is about 13 ft so behind these homes at Section B, they are going to bring the ground surface that exists there now and place 13 ft of fill and then place the homes and roadways on top of that. The hatching shown is the actual areas they would need to fill. As you move to the left, they will see another retaining wall that will be required, an excavation for that retaining wall structure and then bringing it up into another stormwater feature on the other side. Section C goes from the Fairways development across the proposed recharge basin and shows the proposed homes going across and showing another basin that is all the way on the left based on that cross section. One of the things he would like to note and as pointed out in Section A, there is a retaining wall that when constructed, if it is a modular block type wall as proposed during the CAFRA application, they will extend onto the Fairways property. Section D is interesting because they wanted to not only show the impact of fills and homes but on the left, there is an odd plan layout with a retaining wall. On the right, there is a typical home on that cross section which would be for the Fairways at Lake Ridge, the Fairways open space, the 75 ft perimeter setback, the required 10 ft of fill in order to elevate that area, the home across the street and continuing to the left there is a proposed stormwater basin. They reviewed the existing grades and the proposed elevations of the stormwater basin, there is essentially a wall just sticking up out of the ground they estimated to be about 5 ft. The bottom of the basin appears to be proposed at the same elevation as the tree save area to the left so they are not exactly sure if that is just built as a barrier to

protect the tree save area and maybe it'll be some kind of driven pile or it may have been unintentional. But if you don't have that wall, based on those elevations, the water would be flowing from the stormwater basin into the tree save area which as stated before, is a no-fly zone and you cannot do anything or discharge to that area.

Ms. Donato asked if there is a wall proposed to be higher than 20 ft.

Mr. Gall said 25 ft.

Ms. Donato said the walls having varying heights.

Mr. Gall said yes, they vary from 1 ft to 25 ft.

Mr. Stern asked if the applicant's professionals were given these exhibits before the meeting.

Ms. Donato said no, she did not distribute them in advance.

Mr. Gall said on exhibit D-10, they took the existing conditions and the proposed grading from the CAFRA plan, although they adjusted it as they have shifted the homes toward the road because on a number of homes, they proposed parking in the rear yards of the home within the 75 ft perimeter boundary setback. Based on the allowable number, there are essential 4 units per building, 2 units that are above ground and 2 below that could potentially be built and as he understands likely to be built based on the types of construction that goes on locally. They would need about 10 parking spaces for those areas. On the top left is both a before and after and to the right is a photograph of the view looking out at the golf course. On the top, are the new homes and driveways proposed to be constructed and most of the homes adjacent to the Fairways, the parking areas and the driveways are behind the home.

Ms. Donato thought the 75 ft perimeter buffer prohibited structures other than walls, signs, and gatehouses.

Mr. Gall said that is correct.

Ms. Donato said they are placing parking lots in the backyard adjacent to the Fairways development.

Mr. Gall said that is correct and as he will go through, it is apparent that while trying to respect the 75 ft perimeter boundary setback, they needed to push these homes closer to the road which then reduced the front yard setbacks from the minimum 20 ft and in some cases 10, 11 or 12 ft.

Ms. Donato said then many of the houses do not meet the front yard setback requirement.

Mr. Gall said he will talk about that in a bit.

Mr. Stern said regarding the 75 ft, that is presumably something CAFRA would have opined about.

Mr. Donato said no, that is that is in the local ordinance.

Mr. Gall said these drawings are all to scale and the gentlemen shown is 5'9" average height and those are minivans and that would potentially be the view from a rear yard as well.

Ms. Donato asked if a parking lot is a structure.

Mr. Gall said yes, asphalt pavement is a structure as it is made to support vehicles. His going to go through the basis for the GDP as well as the planned unit development standards. The GDP plans in a number of instances do comply, for example scales and things like that. In terms of the site of the plan, one of the things they noticed was missing that they do not have the total non-residential floor areas or at least he could not find them as well as the total density. The applicant also excluded the listing of any kind of basement apartments as he understands it. Going down to B5 of the GDP ordinance, the stormwater management plan setting forth the controlled me proposed method of controlling and managing stormwater on site. There are no details for the storm water drainage system, no details for the routing and sizing of the inlets in the piping networks, there are no locations identified and evidence of the bottom of the infiltrative surface to seasonal high ground water for the 556 seepage pits to be constructed.

Ms. Donato said 556 seepage pits. She asked him if he could describe the size of these are and what they are supposed to do.

Mr. Gall said the seepage pits on this project are proposed to collect roof runoff that is allowed as long as the runoff is clean. It can be directed right to a seepage pit for recharge without having to be treated beforehand. The seepage pits, they are dimensions, and depths can vary, they're usually circular. They have formed holes on the sides of them to allow the water to go out to the sides and infiltrate into the ground. They vary in dimension from 6 to 10 feet in diameter for residential purposes, but they can also be as deep as 10 or 15 feet depending on the requirement for the specific site.

Ms. Donato asked if the seepage pits are part of the stormwater management plan.

Mr. Gall said that is correct. The applicant is utilizing the seepage pits in order to conform to the stormwater management regulations.

Ms. Donato said they are not shown on what he has seen in this GDP application.

Mr. Gall said no, they are described in the stormwater management, the GDP stormwater management report that was submitted

Ms. Donato said but there is no plan for them.

Mr. Gall said no, there are no plans.

Mr. Gall did not see any sort of maintenance plan outlining who or what entities will be responsible for them. Will it be easements or access, the ability for the municipality if necessary. Every municipality has what is called an MS4 permit, a municipal separate storm water system permit usually signed by the head political person in the municipality, the mayor, the committee chair and they are responsible for, even though stormwater facilities can be on private property, they are still responsible for the enforcement, maintenance and upkeep of those basins in the event, for example, a homeowners organization does not take care of these basins and they fall out of compliance and nothing is done, the DEP could come in with enforcement and make those items be taken care of. So, it is an obligation of the municipality to make sure that the developer be required for maintenance and maintenance plans and access easements or something that is going to allow the municipality, if they need to, go in and inspect each and every one of these 556 seepage pits. There is a manhole cover on them, usually you can open up, stick your head down with a flashlight and took a look to see if they are draining and you have to do that 556 times. Each of the homes is going to have its own drywell, at least the above ground units.

Ms. Donato asked if there will be 4 seepage pits per building as there are 4 units proposed.

Mr. Gall said no, he assumed it was 2 per building.

Ms. Donato said he did not count the basements.

Mr. Gall said no, it would not make sense. It is not a use issue as you are really just dealing with the roof.

Ms. Donato said then once the roof is accommodated it really does not matter how many units there are as it is the same amount of water coming down.

Mr. Gall said that is correct.

Ms. Donato asked if the surface area where the seepage pit is needs to be protected in any way.

Mr. Gall said no, usually the top of it is usually buried a foot below grade and then there is a manhole extension that comes up so they can perform inspections. You could theoretically pave over one as long as it has the right infiltrative surface.

Mr. Meyer asked if it is exclusively for rainwater.

Mr. Gall said that is correct.

Ms. Donato said the municipality is essential responsible for these 556 seepage pits.

Mr. Gall said yes, they can require the homeowner's association to maintain them, but it ultimately goes to the municipality and then ultimately to the state who has to answer to the EPA. Even though they are regrading the site and trying to level it off a little bit with the retaining walls, they still have dead ends for the site. It is for the most part a closed depression, he thinks there are some areas where they propose the surface water flows offsite but for the most part everything is going to be draining to these recharge basins where it will be proposed to recharge that water into the ground up to include the 100 storm event as required. There was a question earlier as to what would happen if these basins fail which they can. Technically, basins over time, if they are not clogging or doing their job, usually you put a sand surface on the top so it filters pollutants out and eventually would have to be maintained. But in the event sometimes during construction or over time, these basins can slow down depending on the design if you agree with groundwater elevations on the site or not, the ground water can impact the ability of these basins to recharge. If the groundwater is up, then the closer it is to the basin bottom and the harder it is for the water to infiltrate because it has to hit the groundwater surface and then there is a mounding where the water actually rises up because it takes some time for the aquifer to accept the stormwater infiltration.

Ms. Donato asked if all of the basins on the site rely on groundwater recharge.

Mr. Gall believes there are certain sections on the perimeter that may go offsite but predominantly, all of the stormwater runoff goes to eventually recharge basins.

Ms. Donato asked if there is any redundancy built into this system that he observed.

Mr. Gall said they designed a project in southern New Jersey and there were 8 recharge basins and were in a similar situation as their site was constructed in an old sand mine. There was a slight difference here as there was an ability all the way at the end of the project to guide flow in case the basins failed. The city engineer questioned if these basins fail where the water is going to go. So, they had to provide a plan that showed directional areas where the water was going to flow over land and provide grading that would allow and facilitate that water if the basin were to fail, fill up, not infiltrate anymore, overflow and go over the land.

Ms. Donato said there should be another way to resolve the groundwater other than in the primary basins.

Mr. Gall said that is why you have multiple routes for stormwater to go in the event one component of the system fails.

Ms. Donato said if the groundwater is high, you cannot drain water into the groundwater as it has no place to go.

Mr. Gall said it does, it infiltrates but it just goes at a different rate because it is not driven by the porosity or the openings in between the soil particles, it is then dictated by the ability of the aquifer to convey that water usually laterally.

Ms. Donato said there are certain times of the year when the groundwater is higher.

Mr. Gall said yes.

Ms. Donato asked then when you design a basin, would you need to know when the seasonal high water is.

Mr. Gall said yes, you would normally design this for the highest groundwater elevation of the season usually in the winter.

Ms. Donato asked if he has seen anything that helped him to decide or determine whether or not the design of this stormwater system has taken into account the seasonal high water.

Mr. Gall said there was a lot of soil investigations on this site. He thinks in the CAFRA application, they pointed out a number of different deficiencies for meeting the best management practice manual, appendix D, for groundwater infiltration. He believes the applicant has provided additional information, but he has not looked that closely at the soils data that they have provided.

Ms. Donato said in his opinion as an engineer is something that should be looked at in connection with the stormwater management requirement for a GDP.

Mr. Gall said one of the main concerns, he knows there were photographs presented and he has actually been out to the site, is the fact that those existing ponds overtop and recently they have been overtopping significantly and have been pumped. There has been pumping from some of the areas that have been flooding back to the ponds to try to alleviate the flooding issue. From his observation, groundwater is right about at the elevation of the ponds that are there. He knows during the CAFRA application process there was a claim he thinks by one of the attorneys for the applicant that they felt the ponds were lined but nobody was able to provide any type of evidence. The groundwater elevation seems to align with what the regional groundwater elevations would be. One of the things spoken above previously was they design these things, they design a building, they live in buildings and if they were worried about buildings failing would there be an issue. Well the issue on when you build a structure is that there is redundancy. If a beam fails or a column fails, the loads can be redistributed to other areas and that is what they call redundancy. Similar to what he talked about where the basin could overflow and go somewhere else. This site has no redundancy. If the basins were to fail, they would have nowhere to go other than basically backup and up. He doesn't know what the impacts would be from the homes but if they started to fail it would be a significant maintenance headache and cost expense for the community.

Mr. Stern asked if redundancy is best practice or is a requirement.

Mr. Gall said he is going to describe in how a stormwater basin is normally designed. Basically, you would design the stormwater basin to collect the stormwater, for quantity and flooding, hold it for a certain amount of time and then

slowly release it to mimic the predevelopment conditions. Most ordinances have requirements for emergency spillways, a redundancy. If, for example, an orifice and a concrete structure that is controlling flow out gets clogged and the basin starts to fill up it goes through this emergency spillway so that it can safely convey the water over the embankment and in a direction that is not going to provide harm to other properties. In this case, they are in a hole.

Mr. Stern asked what the Lakewood ordinance requires.

Mr. Gall does not recall.

Mr. Vogt said the township uses the state stormwater ordinance. They layout criteria for design and maintenance. Hypothetically speaking, if they go forward with part or all of this application and they implement a stormwater system, either they have to convince the township to take ownership, which he expects is not going to happen, or they're going to have to develop a stormwater maintenance plan which meets the requirements of NJAC 7:8. That is going to identify how the basins are going to be maintained. In this case, most likely, by a future homeowner's association. Talking about basin types, he does not want to get too far into this as they do not have a design, but he thinks what Mr. Gall is talking about with respect to an overflow structure of a pipe is a detention basin outflow.

Mr. Gall said yes but also similar to this and the project they designed with a similar environment, they did not have any kind of outfall structure but when you are relying on a pond groundwater recharge solely then that is your outfall structure, that is what putting it into the ground. That is why we were required on that one application to have an alternate if it all sudden stop working for some reason, clogged, somebody threw something in there and clogged it up it would be an issue.

Mr. Vogt said if this gets to a point of a future design that we all look at that is public information that everyone including the NJDEP would have input on then that's certainly an option in the case of a recharge basin another method is to build in ways of ensuring the maintenance of the basin's ability to percolate that may include something known as scarifying a basin if you get sediment buildup on the bottom that begins to reduce the flow. There are methods that are outlined in NJAC 7:8 from a maintenance standpoint and that is what they use to govern and that is what the state is telling them to use to govern. He believes that is what NJDEP used to govern in review of the CAFRA permit.

Mr. Gall completely agrees, and he also understands how diligent homeowners' associations can be with the maintenance of their basin and he is being a little sarcastic because a lot of times they get involved in projects where it's a lot to maintain. This is a lot to maintain.

Mr. Gonzalez said there has been testimony that the actual stormwater management system has not been designed yet all evening Mr. Gall has been testifying that he received information from drawings that depict what the stormwater management was going to look like.

Mr. Vogt said what they have reviewed and what was submitted to the board, was the general development plan and the general development plan documents. That is what we are looking at. He believes what the gentleman is referring to is a different set of CAFRA design documents.

Mr. Gall said yes and also, they did submit a GDP stormwater report.

Mr. Vogt said he is referring to design information, he assumes that's not part of this GDP.

Mr. Gall also reviewed the GDP stormwater, they are essentially the same report except they took out all of the routing information.

Mr. Vogt said what the GDP talks about, and again the language in the UDO as well as the MLUL is virtually identical, subsection E of the MLUL, a stormwater management plan setting forth the proposed method of controlling and managing stormwater. The applicant is saying that they intend to do this by a series of infiltration basins. They are telling you what they intend to do without doing the hard designs because the hard engineering of all the grading, everything that would go into a stormwater plan has not been done yet. If and when they get a subdivision design or a site plan design, that is an entirely different level of design per NJAC 7:8 than what is required now as part of the GDP process.

Mr. Jackson said if the applicant comes back at a later time when more detailed plans are submitted for the actual subdivision, that will require approval.

Mr. Vogt said yes.

Mr. Jackson said the applicant would have to go back before the board and at that point you will scrutinize it. He questioned what would happen if once they scrutinize the plans, they determine that the geogrids are extending into the adjacent properties or that the stormwater management system lacks sufficient capacity or whatever.

Mr. Vogt said they would recommend design changes if we were not comfortable with the design. Now the case that was brought up about the geogrid earlier may be absolutely true. He does not know if the applicants looked at that or not. Assuming it is true that they have not factored in that they have to have the tie backs of the geogrid go offsite, if they were to try to implement that design, they would have to get the adjacent town approval and there would have to be some form of construction easement.

Mr. Jackson said or they would have to modify the design

Mr. Vogt said or they would have to modify the design. The township may come back if they tried that and say no, we are not going to give you whatever agreement you need to implement your design and at that case, they would have to make the changes.

Mr. Meyer argued this scrutiny is moot at this point if it is not the final design.

Mr. Vogt said they are all valid concerns. They do not have the design documents.

Mr. Jackson would not say they are not relevant or moot. The board can certainly take that into consideration, determining the feasibility of the overall plan but just keep in mind that this is not intended to be a final design.

Mr. Meyer understands but he does not know what they can take into consideration if this is not the final design.

Mr. Jackson suspects where they are going is, they are saying they are going to have 25 ft walls and the boards going to have to consider whether they should be maintained.

Mr. Meyer said if the board did find in favor of the application and the 556 homes were approved and they came back with an actual application that did not allow for 556 homes then it would not allow for it.

Mr. Jackson said they would have the general development plan but that gives them some latitude to make some modifications and if they had to reduce the number of units, they could do that.

Mr. Meyer said as long as the stormwater drainage would work.

Mr. Jackson said yes and that would be scrutinized at that time and it would all have to work but he suspects what the point of this witness is there is a lot of moving parts here and the board could look at this as the integrity of the overall land and whether it's a good plan or not. He is paraphrasing but he thinks that is a fair thing to point out, but just keep in mind this will all be looked at in detail at the appropriate time. The applicant's testimony was this is a general development plan, he called it a view from 10,000 feet earlier and when they have to do the actual designs and you know do all the calculations that's when it will be scrutinized at that time, but they haven't done all of that yet.

Mr. Vogt has a copy of the CAFRA permit that was issued for this project and he is looking at standard condition 15. They have a statement that says the department or DEP. This is based on the review of the CAFRA documents which are not exactly this but the statement says, 'the department as determined that this project meets the requirements of the stormwater management rules NJAC 7:8. Any future expansion or alteration of the approved stormwater management system, which would affect water quality, increase the rate of volume of stormwater leaving the site, affect the infiltration capacity on the site, or alter the approved low impact site design shall be reviewed and approved in writing by the department prior to any construction. This includes but is limited to any proposed changes to the discharge characteristics of any basin, the construction of new inlets or pipes that tie into the storm sewer network and/or the replacement of existing inlets or pipes with structures of different capacity.' The way that he reads this is if they come back with a future design, not only is a subject to the board review and their review, the state gets another crack at this.

Mr. Stern asked what he would suggest of them as everybody here is saying they are not down into the nitty-gritty of designing storm retention basins right now. He thinks also everybody agrees they are not just saying it looks good and let's keep moving. He asked if there is a bright line as it relates to the stormwater management issue in particular that he would give the board and say this is relevant, you need to drill down or this is not relevant, you are getting lost in the details.

Mr. Vogt cannot really say that. He thinks some of the specificity that is being brought up at this stage, the comments are valid, the scrutiny may be premature until they get design documents. If they get design documents that do not address these concerns, yes, it is fair game, but they don't have that yet.

Mr. Stern asked what they should we be looking at

Mr. Vogt said according to the MLUL for a filed General development plan, you should be looking at a stormwater management plan setting forth the proposed method of controlling and managing stormwater on the site. The GDP does not even require grading the way he reads it.

Ms. Donato said the MLUL section 18-606 which Lakewood's ordinance general development plan requirements. There are several sections of that ordinance which do indicate that you have to have a utility plan with drainage facilities necessitated by the physical characteristics of the site. That is what this witness is addressing, drainage facilities resuscitated by the physical characteristics of the site. There is also the stormwater management, there is also the environmental inventory, there's a number of factors and she thinks they cannot discount the fact that they're asking to be vested with the approval to build a certain number of units. If the board grants the GDP approval, they have vested rights to that number of units

Mr. Stern said subject to other restrictions.

Ms. Donato argued that is not what the statute says. This is the overall development that says here is how many units you get to have. That is what it says in the statute. They get vested with the number of units that they have applied for and then the board has to figure out what to do with the future when they've given them approval and they don't have a stormwater management plan that the GDP ordinance required.

Mr. Schneider said he has not objected to any of the questioning but these speeches by Ms. Donato are not an examination of a witness and unless he is permitted to object after each speech, he thinks she should be directed to question the witness. That would be appropriate when they both have the opportunity at the end of the case but not to use the time that is supposed to be for questioning a witness to make speeches.

Ms. Donato said she was responding to Mr. Vogt's testimony as he went into what the ordinance requires, it was not a speech. It is a reference to the ordinance that applies to the board's decision

Mr. Gall understands that things may be moved or changed may be made to the plans, but the board needs to understand that this plan fits as much as they possibly can on this site. If a wall or a basin is shifted or changed in size, it is going to impact dozens of homes. Retaining walls were placed right to the properties boundaries so there was no space wasted on this site in terms of engineering structures and the proposed homes. It has about how much as you are ever going to fit, it is just going to be a lot less if these things are moved. One of the items in their analysis that they never picked up in the CAFRA review, in reviewing the GDP, the plans and the existing site conditions survey, they noticed a 48-inch diameter pipe that comes apparently from the Fairways community development. Exhibit D-11 shows the existing topographic map boundary survey and proposed conditions on the plans and this is the CAFRA based plans to show the layout without moving some of the homes to comply with the setbacks. In reviewing the existing conditions plan, they noticed a 48-inch diameter pipe that goes from the Fairways, based on the inverts, into the large pond on the eastern side of the golf course. The survey stops and it says storm manhole at the top and then there is another storm manhole with another elevation with a rim and they were unable to open so the survey essential stopped there.

Ms. Donato said they are looking at D-11 and there is a double dashed line where it is labeled 'flared end section'.

Mr. Gall said correct, that is where the pipe discharges into the pond. If you look below on the proposed conditions plan, which really does not change on the GDP except for the home locations, the pipe actually is cut off just above across the property boundary, connects to a manhole and then discharges into the proposed basin C system. There is a basin C2 here adjacent to the property boundary, but they are hydraulically connected, and they can go to all the different basins depending on the elevation of the water. He questioned why there would be a 4 ft diameter pipe as that is a lot of water that would have to be conveyed through that system. Normally, when you are doing stormwater design you are dealing with anything from 18 to 24 inches or 36 inches maybe, but 4 ft is a pretty big pipe once you start and that means you are probably collecting a lot of water and from a larger area.

Ms. Donato said this 4 ft pipe is coming from the Fairways development.

Mr. Gall said yes, according to the survey submitted by the applicant. The pipe is going from the Fairways community into the pond on the golf course. Exhibits D-12 and D-13 were both prepared by Lynch, Giuliano and Associates back in 1996 and 1997 and apparently, they first applied for a permit from the NJDEP during preliminary and major subdivision plan. There are two highlighted lines on the plans, the one on the left is just a blown-up version of the one on the right. The table at the top right described the elevational inverts of the different manholes that are described on the plan. He went through the report prepared by Lynch, Giuliano and Associates.

Ms. Donato said he is referring to the report by Lynch, Giuliano and Associates dated September 2, 1996 'Preliminary stormwater management report and drainage calculations for Lake Ridge North'. The report was entered as exhibit D-15.

Mr. Gall said the report describes the original design of the Fairways community project as well as the golf course. Looking at the page where it lists 'basins #7, #8 & #9, The outflow from basin #7 flows into basin #8, the outflow from basin #8 flows into basin #9 and the golf course recharge area. The overflow structure located in basin #8 allows only the peak flows from the 10 and 100 year storms to be diverted to the recharge areas in the golf course.'

In reviewing the report, the total drainage area that goes to detention #8 is about 368 acres. When looking at the inverts in this pipe network, the control elevation of the preliminary plan set the elevation at 82 and so any water according to this drawing that would go above that elevation flowed then toward the golf course. There is a 4 ft diameter pipe which connects to two graded inlets on the street that collect other surface water and then go toward the golf course. The next exhibit D-13 is an updated plan also by Lynch, Giuliano and Associates, the pipe networks actually drain toward basin #8 so they lowered the flared in section to make sure that all the flow from the road goes into detention basin #8 and not the golf course. However, when you get to catch basin 6-4 on the left side of Skyline Drive, it now drains in the opposite direction toward the golf course. The elevation of the invert at that point is 82, the same control elevation as in the preliminary plan that was approved by the NJDEP. When you look at the prior plan of the elevation of the 100-year storm elevation it equals 85.62 so if they have an invert of 82,

Mr. Stern asked what an invert is.

Mr. Gall said an invert is the elevation of the bottom of the pipe so when you are trying to figure out grades and direction of flow, they talk about inverts. This pipe splits, some of it flows toward basin #8 on the Fairways and some of it flows toward the golf course only when it reaches elevation 82 for the 10 and 100 year storm events. If the water surface elevation goes to 85.62 that means there is 3.62 ft above the invert that is controlling it so any water above that elevation, now some of it goes to the golf course through the 4 ft pipe and some of it goes downstream to the main outlet of the detention basin so a lot of water is going to the golf course at that point. What they talk about in this report is what is called an overflow pipe or overflow and what that is it is an emergency spillway. It is a way to relieve the water because they are trying to reduce the water going downstream and sending some of it to the golf course. Why they did it, he is not sure frankly, but you can see obviously based on what they state in the report and what they have on the plan is the intended use to divert a good amount of water to the golf course.

Mr. Stern asked if that is why the pipe is so large.

Mr. Gall said yes, to make sure it can convey enough water to comply with whatever stormwater calculations they prepared. The reason he mentioned this is now we have this 48-inch pipe that goes into the golf course that essentially is stormwater generated from the Fairways. So, the Fairways and the golf course are inextricably tied together now based on this storm water pipe when Lynch, Giuliano and Associates designed this storm water system apparently, they assumed that the the golf course and the Fairways development was one development. Otherwise, you do not as an engineer, divert water to another property.

Mr. Schneider thinks it is beyond the competence of this witness to testify as to what another engineering firm assumed 20 some years ago. He can testify what the plans show, what the report shows, but he thinks it is beyond his competence to speculate as to what another engineering firm assumed.

Ms. Donato does not think he was testifying as to what another civil engineering firm assumed. He is testifying to what another civil engineering firm did. They connected both the residential and the golf course together.

Mr. Gall is saying that if he were to design a system on a property, he would be trespassing if he designed a stormwater pipe to then divert flow to another property without its permission or it is something that is not going to create hydrologic trespass.

Mr. Jackson asked if he is familiar with any kind of easement or license or any kind of property right that allows this pipe to flow going to this property.

Mr. Gall assumes the permit from the NJDEP and the planning board approval that was probably originally provided

Mr. Jackson asked if he reviewed any documents that created an easement or any kind of property right.

Mr. Gall said no.

Ms. Donato said they would present the entire history if necessary.

Mr. Jackson said he was asking the witness a question.

Ms. Donato said the existence of this pipe interconnects the stormwater for the Fairways residential community to the golf course.

Mr. Gall said yes.

Mr. Stern asked if the CAFRA permit referenced this at all.

Mr. Gall said no.

Mr. Stern asked if they missed it.

Mr. Gall does not know. One of the things that is of concern is the GDP plan or application is that there is not a clear reference. The drainage area maps that are included with the GDP application do not illustrate the additional acreage that is actually discharging from that detention basin #8 in the portion of that 368 acre watershed that was originally designed for that pond to cover that portion of the flows from the 100-year event out into the Fairways golf course.

Ms. Donato asked what the relationship is of the 48 inches or 4-foot pipe to this General development plan application.

Mr. Gall said according to the Giuliano plan during the 10 to 100 year storm event going through the Fairways development, a good portion of that's going to go into the Fairways golf course and that's why when you read the report it talks about how the golf course had the ability to collect it, hold it and eventually allow it to recharge and what I was getting at was now this pipe is going into a section that is surrounded by retaining walls. There is not really an area that the water can then overflow and then spread out across the golf course and then recharge and go back in. Its literally got nowhere to go and this is speaking as an engineer if I was an engineer, I'd be worried about creating a hydrologic trespass issue for his client if this basin fails, something happens to it, if they can't collect the flow anymore and it backs up into the Fairways development that could be an issue. Now you could say the water already flows there, so what is the difference. The difference is you have an open air golf course or pond in the golf course and if that thing overflows, it just goes all over the golf course, no harm, no foul. Now you are going into a highly engineered maintained system that is limited in area and more limited in area than the pond and the surrounding grades that could take the water.

Mr. Stern asked if the pipe on D-11 is the same pipe shown on D-12 coming from the Fairways.

Mr. Gall said that is correct.

Mr. Stern asked if the pond is going away.

Mr. Gall said yes, they are filling the pond in and they're building a recharge basin so they're going to be closer to the Fairways property, truncate it and put a recharge basin to intercept that flow coming off of the Fairways development.

Mr. Stern asked if the recharge basin is smaller than the pond and can it handle the same amount of water.

Mr. Gall has no idea. The application did not provide any information how that water is being diverted, how much water, was the basin designed to accept all that water. It is literally not in this application.

Mr. Flancbaum asked if they show the pipe going into the basin.

Mr. Gall said yes, they do but there are no calculations or explanation of how of how that infiltration basin is going to handle the flow coming into the property. Just be clear, they cannot just cut this pipe off either. If they cut the pipe off, they are actually going to reduce the capacity of that basin in the outflow going downstream where the basin goes normally under lower conditions. It will back up and cause all kinds of flooding problems there and frankly and now you could say well what if we cut it off and convey the water, let's just keep the water going downstream on the Fairways property. Well now you are going to have to go back in they are going to have to get a flood hazard area permit to divert all that water back there. They are going to have to create an emergency spillway because now that that overflow area is not allowed to convey the water there anymore and that basin does not have any other emergency spillway and you are going to be sending additional volumes of water and potentially flooding downstream from that basin.

Mr. Stern said they do not know if the new retention basin has more capacity than the pond, less or the same amount.

Mr. Meyer said it is based on the assumption that it doesn't.

Mr. Gall said it would be a huge problem.

Mr. Stern is not challenging if it's one tenth the capacity of the pond that might be a problem, but it might have twice the capacity of the pond, they don't know.

Mr. Meyer said it is something that needs to be addressed.

Mr. Gall questioned how the board approves a plan when they have no idea how big that basin will be and how many units it is going to affect.

Mr. Jackson said that's legal argument. He thought he heard at the outset that this plan was submitted to the NJDEP and that his firm objected or prepared the objection.

Mr. Gall said that is correct.

Mr. Jackson asked if he raised this issue about this pipe to the NJDEP in his objection.

Mr. Gall said no they did not.

Mr. Stern asked why not.

Mr. Gall did not have the Lynch, Giuliano and Associates report or the existing conditions of the pipe coming into the site and it was not their purview to determine where that pipe goes.

Mr. Jackson thought he heard in his testimony the pond fails from this 4-foot pipe in the 100-year event storm event comes, downstream from the Fairways that then it would spill over into the golf course. Now, a golf course

gets flooded that is one thing. He asked what is going into that area the golf course. Is that going to be a low area where there will be homes, will that flood, what happens

Mr. Gall said it is going into that stormwater basin system surrounded by retaining walls.

Mr. Jackson said it had previously gone into a pond. If the pond overflowed, then it flooded into the golf course so now it goes into the basin so if the basin overflows where would it go.

Mr. Gall said it would go to the adjacent properties and houses.

Mr. Jackson asked if that is a low spot on the site or would that be level spot.

Mr. Gall said it is a low spot.

Mr. Jackson asked where it would it be on D-14.

Ms. Donato asked Mr. Gall what particular identifiable feature is that detention basin or the stormwater basin between Fairways he pointed out.

Mr. Gall said it is basin C-2. This basin is hydraulically connected to two other basins as well.

Mr. Jackson said to bring up exhibit D-7.

Mr. Gall said, referring to exhibit D-7, the pipe comes in from the Fairways, connects to basin C-2 and there are pipes between the other basins.

Mr. Stern asked where the pond is located.

Mr. Gall pointed it out on the screen.

Mr. Jackson asked if that continues to be a low spot in the final configured site design.

Mr. Gall said it does. Here is the problem, if that backs up higher than it does now, and that pipe was never designed to hydraulically accept that depth of water it will restrict the flow coming out of detention basin #8 and potentially cause more water to go downstream or overtop their own basin

Ms. Donato asked if he is referring to the Fairways basin.

Mr. Gall said the Fairways basin.

Mr. Meyer said this is all under that assumption that C-2 and the basins it adjoins with cannot handle the runoff.

Mr. Gall said correct and the applicant has not provided any calculations to show that they have taken that into account.

Ms. Donato said they have been in a process in the litigation and discovery...

Mr. Jackson asked that she proceed with direct examination of the witness.

Ms. Donato said based on the information that he has seen in connection with this application, is he able to tell this board that the way that the basins are designed for the Parke would be adequate to handle the flow from the Fairways.

Mr. Gall said no.

Mr. Stern asked if he is saying it will not be able to handle it or is, he saying they don't know whether it will be able to handle it.

Mr. Gall said right now they do not know if they can it can handle it as the information has not been provided in the application.

Ms. Donato said as an engineer and evaluating what is before this board as GDP, is it his recommendation that they obtain information to address this concern about this 4-foot pipe.

Mr. Gall said if he were the engineer for the municipality, he would want routing information to understand the impacts of the flow from the basin from basin #8 on the Fairways property into the golf course.

Ms. Donato said if changes are necessary to the plan in order to address this issue, could that change the number of dwelling units that are proposed to be vested with approval under this GDP.

Mr. Gall said yes. One of the things that he wanted to go through under the planned unit ordinance, one the things they noticed on the land use plan, which is the last plan exhibit, D-14. He went through and noticed the one big change between the CAFRA application, and this application is a number of homes along the property boundaries had been shifted toward the interior circular roads. The setback in accordance with the planned unit development ordinance is at a minimum of 20 ft front yard setbacks from the road. He counted about a 103 are all pushed toward the road assuming they are trying to comply with the 75 ft perimeter boundary setback. However, that requires then the driveways to go to the rear yard. So, either there will need to be a waiver proposed but it also goes to show that if you wanted a 100% compliant plan this plan does not show it. They would need to do something with those 103 units of the 556 it is nearly 20% of those units have their front yard setback reduced between 10 and 12 ft. So, from 20 to 10 and 12 ft, which then require them to put the driveways in the rear yard within the 75 ft perimeter setback.

Ms. Donato said the 75 ft perimeter setback under the planned unit development ordinance. 18-1 021 is supposed to be free of structures

Mr. Gall said that is correct other than gate houses, fences, and walls.

Mr. Gall said now you have now got driveways in the 75 ft setback and also just to be clear, retaining walls are exempt from that requirement, but detention basins are not and so a detention basin is a man-made structure and is also not allowed within the 75 ft perimeter boundary setback.

Ms. Donato said basically in D-14, he has identified those lots where the buildings do not meet the front yard setback requirement

Mr. Gall said correct.

Ms. Donato said those that back onto the perimeter of the property do not meet the perimeter setback requirement because they have parking lots in the backyard.

Mr. Jackson thinks the configuration in this area is there are driveways between the houses and then the parking is in the rear yard. He asked if there is an exhibit which shows that configuration

Ms. Donato said on exhibit D-10 on the bottom right-hand side. This is a modest projection of the number of parking spaces because it is based on the residential improvement standards.

Mr. Gall said correct.

Ms. Donato said it is based on a three-bedroom unit and there are indications that these are five bedroom units.

Mr. Gall said correct.

Ms. Donato said that particular plan shows the parking lots in the rear yard perimeter setback.

Mr. Gall said correct.

Ms. Donato asked about the phasing schedule.

Mr. Gall said part of the ordinance states that the proposed timing schedule in case of a planned development if construction is a contemplative over a period of years including any terms or conditions which are intended to protect the interest of the public and the residents who occupy any subsection of the planned development prior to the completion of the planned development in its entirety. One of the things he pointed out and it is not explicitly stated but as seen in the cross sections provided there is a lot of earth work that is going to be going on here. Cuts of up to 25 ft, fills of 10 to 13 ft. There is going to be a lot of dirt moving around this site. He doesn't even know if the site balances as there's no information that would provide that nor were they requested to try to calculate that based on the plans that were provided so they don't know if this is going to require an import and export, will it generate trucks that are going to have to bring material in and what the overall effects are on the phasing plan in terms of will each phase be balanced to ensure that there's no export or import of materials that would add to traffic on the streets.

Ms. Donato said given the retaining walls and the height of those walls, if this was not a balanced site and they had import fill, how would that fill arrive at the site

Mr. Gall said usually in tandems or tri-axes so trucks that can handle up to 23 or 25 yards per truck.

Ms. Donato said the first section of the phasing plan is going to be up by the entrance road.

Mr. Gall said essentially, it is going to evolve where the first phase is up by the entrance road and then the last phase will be constructed down toward the Fairways Skyline Drive area.

Ms. Donato said if trucks have to import fill after the first phase is completed. She questioned how they would access the site.

Mr. Gall said the prior phases.

Ms. Donato said people living in the development in early phases will have these trucks coming by in order to deliver fill.

Mr. Gall said yes.

Mr. Schneider said the packet of exhibits that have been marked D-7 through D-14, some of them are derived from the CAFRA permit application.

Mr. Gall said that is correct.

Mr. Schneider said others are derived from the GDP application before this board.

Mr. Gall said that is correct.

Mr. Schneider said others are derived from preliminary and final site plans for the existing Fairways residential communities.

Mr. Gall said that is correct.

Mr. Schneider believes it is his testimony that the GDP application is similar to the CAFRA plan.

Mr. Gall said yes, very similar

Mr. Schneider said very similar, but not identical.

Mr. Gall said not in all aspects, no but close enough to compare the two

Mr. Schneider said nonetheless, it would be necessary to get NJDEP approval to modify the CAFRA permit in the event the board were to approve the GDP and the applicant were then to subsequently go for preliminary and final site plan and subdivision approvals consistent with the GDP.

Mr. Gall said that is correct.

Mr. Schneider said that would give the NJDEP another bite of the apple so to speak with regard to any and all issues within its jurisdiction.

Ms. Donato objected. The purpose of these proceedings is not to decide what the NJDEP can do.

Mr. Schneider said there was a lot of testimony concerning the CAFRA permit application and there are exhibits that come from the CAFRA permit application.

Ms. Donato said whether or not you have exhibits from the CAFRA permit application...

Mr. Jackson thinks the objector and the witness suggested some of the designs may not work, may have not been completely thought out and the point of that he thinks was that maybe the board should not approve the application on the basis that some of these features might not work. He thinks the cross-examination is to emphasize the point that it is not a final configuration and there were various levels of review and if something does not work and it had to be changed it would still go back to the NJDEP and he thinks that's a fair point to make on cross-examination. He thinks the board should allow this line of questioning to proceed.

Ms. Donato said Section 22 of the land use law indicates that when this board acts, it acts, and it conditions its approval in appropriate instances on other governmental approvals which she does not dispute. Their purpose for being here is to establish that this board has the jurisdiction to approve, modify or deny or send that applicant back to the drawing board and if they have to go back to the NJDEP, they go there. It is the GDP they are dealing with regardless of how that may impact on a CAFRA permit.

Mr. Schneider said he agreed that the GDP application plan is very similar to the plan approved by NJDEP.

Mr. Gall said nearly identical

Mr. Schneider said there are some differences.

Mr. Gall said yes

Mr. Schneider said to develop as proposed in the GDP would require going back to the NJDEP and getting the permit amended.

Mr. Gall said correct.

Mr. Schneider said the NJDEP could look at all the issues within its jurisdiction in considering that amendment.

Mr. Gall said that application was a little different because it was initially denied and then there was a settlement agreement on appeal and so and they were involved in some of that process, so they had no idea what was agreed to behind closed doors.

Mr. Schneider said there is a written settlement agreement.

Mr. Gall said yes.

Mr. Schneider said he has seen the written settlement agreement

Mr. Gall believes so but does not recall.

Mr. Schneider said there was public notice of that written settlement agreement

Mr. Gall does not recall.

Mr. Schneider said his firm submitted written comments on the proposed settlement.

Mr. Gall said yes.

Mr. Schneider asked if that refreshes his recollection.

Mr. Gall said that is correct, but the deal was done.

Mr. Schneider asked if that written settlement agreement say NJDEP does not have jurisdiction to review a CAFRA permit amendment.

Mr. Gall said no.

Ms. Donato said absent having submission of plans before this board that would show aspects of this development that they are seeking to have you approve and vest for extended periods of time with protection against zoning changes. That is all that they are here for. It is not about the CAFRA settlement approved behind closed doors that they were only able to comment on later. It is not about that, that is up in the appellate division. It is about what's before this board on this GDP. if you want to keep going on about the fact that they got a reversal of the denial and all of that then they will get into it and be here until the cows come home.

Mr. Meyer said she raised the idea that if approval was granted then everything would vest, and he thinks Mr. Schneider's disagreeing with her and saying that is not the case because NJDEP would have a say on that whether they say it vests or not is irrelevant because it would have to go back in front of the NJDEP.

Mr. Schneider said that was part of what he was saying and in addition at the very outset of this evening's hearing, he requested that they not get into the CAFRA permit. Yet as the witness has acknowledged, they submitted plans, they submitted exhibits that come directly from the CAFRA permit. The chair decided that the board was going to allow more in than less if they can present direct testimony relating to the CAFRA permit then he can cross-examine.

Ms. Donato thinks there's confusion in that the applicant is before this board on a GDP. In order for this witness to have evidence that he could show and present what is the stormwater plan that the board did not have plans for, the application, she thinks was erroneously declared complete because this is in the ordinance. If the board were to approve the plan before them, they do not have to go back to the NJDEP because it is virtually identical. They might have a little minor change, a little minor tinkering so really, you are really comparing apples and oranges. Whatever the board does that changes anything that happened at the NJDEP would require the applicant to go back and get approval, but this is a GDP application for which the board did not get the information needed for them to evaluate it pursuant to their own ordinance. She does not think what happened behind closed doors at the NJDEP on the settlement and what happened with the stormwater plan is relevant to this GDP. What is relevant is do they have the information here. If they had no other source of information because of deficiencies in the submission. they relied on the CAFRA plan, that is all. They are not saying the CAFRA plan is right, they have appeals on that. That is not it. They are just saying that that is where the information was about the retaining walls and the detention basin

Mr. Stern asked that Mr. Schneider continue his line of questioning.

Mr. Schneider asked the provenance of exhibit D-7. He asked if he created the exhibit from scratch.

Mr. Gall said no, it was from the CAFRA application plan that included the retaining walls.

Mr. Schneider said it was this part of the approved CAFRA application plan.

Mr. Gall said yes.

Mr. Schneider asked if he interposed two different documents onto the page. The window in the upper left-hand corner that that appear on the plan just as it is depicted on D-7.

Mr. Gall said no, a portion of it was a typical detail in the CAFRA plan and they added information to describe to the board how a retaining wall is constructed.

Mr. Schneider said the insert part of it was a typical retaining wall as shown in the CAFRA application.

Mr. Gall said a portion of it.

Mr. Schneider said part of the insert you added to.

Mr. Gall said correct.

Mr. Schneider asked what they added.

Mr. Gall said color, the excavation limits, and the note at the bottom.

Mr. Schneider asked if they added anything to the larger plan that appears in D-7.

Mr. Gall said they highlighted areas where they interpreted there were retaining walls.

Mr. Schneider asked what he means by interpreted.

Mr. Gall said there were top of wall elevations, bottom of walls. So, they did not interpret, they found the retaining walls.

Mr. Schneider asked if it says on this plan top of wall, bottom of wall.

Mr. Gall said no, they used their close-up of their grading plan which is a close up of this plan on this.

Mr. Schneider said D-7 comes from the CAFRA permit application.

Mr. Gall said the basis for the layout, yes.

Mr. Schneider said the NJDEP ultimately issued a CAFRA permit.

Mr. Gall said yes.

Mr. Schneider asked where D-8 came from.

Mr. Gall said the GDP application.

Mr. Schneider asked if he testified how many dwelling units are called for in the GDP application.

Mr. Gall said 556.

Mr. Schneider asked if he knows how many units were approved and by the NJDEP and CAFRA.

Mr. Gall does not recall.

Mr. Schneider asked if it was a different number.

Mr. Gall does not recall.

Mr. Schneider said yet without knowing how many units were approved by NJDEP versus how many are proposed by the GDP application without knowing whether there is a difference or how substantial that difference is he's able to say, they're virtually identical.

Mr. Gall said they are virtually identical.

Mr. Schneider asked if it is not true that he wrote a letter to NJDEP commenting on the CAFRA plan that was derived from the settlement.

Mr. Gall said yes.

Mr. Schneider asked if he stated that it contemplated 517 units with a possibility of 517 basement apartments.

Mr. Gall does not recall, it was two years ago.

Mr. Schneider asked if 517 units, in his opinion, is virtually identical to 556.

Mr. Gall said yes.

Mr. Schneider said looking at D-9, Sections B, C and D as depicted on here. There is a comparison to a house on the existing Fairways development.

Mr. Gall is unsure what he is asking.

Mr. Schneider said looking at section D existing and section B proposed. He asked what is on the far-right hand side where it says Fairways open space and then has what looks like a 3-D rectangle.

Mr. Gall said that's depiction of an existing home on the Fairways community

Mr. Schneider said in relation to section B as he delineated in the proposed GDP.

Mr. Gall said no, they had to use the proposed grades for the CAFRA application because the engineer provided zero grading information for this board to decide upon.

Mr. Schneider said the existing and proposed in D-9 also is taken from the CAFRA application.

Mr. Gall said correct.

Mr. Schneider said in fact from the approved CAFRA plan.

Mr. Gall said correct.

Mr. Schneider said he compared an existing home in Fairways to what was proposed in the CAFRA permit and approved by the NJDEP for Section D.

Mr. Gall said yes, which is virtually identical to the GDP application. He felt in order to depict instead of a two-dimensional plan as your engineer had shown, they felt it was important for the board to make their decision to look at this project in three dimensions.

Mr. Schneider said what it does is compare a home in the existing Fairways to the approve CAFRA plan.

Mr. Gall said actually, it will be it will be better looking in the approved CAFRA plan than in the proposed because there will not have cars in the rear yard on the CAFRA plan.

Mr. Schneider is trying to determine what he compared it to. He asked if he compared it to the approved CAFRA plan.

Mr. Gall said both the GDP and the CAFRA plan as they are virtually identical.

Mr. Schneider asked if he compared it to the approved CAFRA plan.

Mr. Gall said yes.

Mr. Schneider said not to the originally proposed CAFRA plan, but to the approved CAFRA plan.

Mr. Gall said correct.

Mr. Schneider said similarly for Section C, he compares an existing home in Fairways to existing conditions and to what is proposed in the approved CAFRA plan.

Mr. Gall said correct.

Mr. Schneider said the same is true for Section D.

Mr. Gall said correct.

Mr. Schneider said Section A does not have any comparison to an existing home in Fairways.

Mr. Gall said correct.

Mr. Schneider said let us look at section B. The elevation in Fairways is higher than the existing elevation in the golf course.

Mr. Gall said correct.

Mr. Schneider said and If the golf course were to be developed per the approved CAFRA permit, which he regards as virtually identical to the GDP, the elevation in the existing Fairways community would still be higher than the adjacent area and the golf course.

Mr. Gall said except the sight line from the home. There is an existing sight line that goes from somebody walking out the backyard could see virtually across the golf course, they will be looking at the back of the home.

Mr. Schneider asked again if the elevation in the Fairways community would still be higher than the elevation in the developed golf course.

Mr. Gall said it will be 13 feet less high then it is now.

Mr. Schneider said if developed per the approved CAFRA permit which he says is virtually identical to the GDP, the elevation in Fairways adult community would still be higher than the elevation in the golf course. True or not true.

Mr. Gall said except for blocking their view, it will be a little bit lower.

Mr. Schneider said the answer to his question is yes. The elevation will continue to be lower.

Mr. Gall said it is not that simple will the other elevation, the roof of the house on the proposed development will be higher.

Mr. Schneider said the grade the grade.

Mr. Vogt believes the phrase they should be asking is ground elevation.

Mr. Schneider asked if the ground elevation will be lower on the golf course than in Fairways.

Mr. Gall said yes.

Mr. Schneider said Section C, existing conditions, the elevation in the Fairways is higher than the ground elevation of the golf course.

Mr. Gall said yes.

Mr. Schneider said in the proposed condition the ground elevation in Fairways in Section C would continue to be higher than the ground elevation of the golf course.

Mr. Gall said from a retaining wall, the drop-off and fills on the other side, it will still be lower on the golf course.

Mr. Schneider said with regard to Section D under existing conditions the elevation is higher in the Fairways than it is on the golf course.

Mr. Gall said yes.

Mr. Schneider said in the proposed condition, the ground elevation in the Fairways would continue to be higher than the ground elevation on the golf course.

Mr. Gall said correct, except in all instances the sight lines will be blocked but yes.

Mr. Schneider said that is not an exception. In all instances, the ground elevation would be lower

Mr. Gall said just as all views would be blocked.

Mr. Schneider said his question would the elevations be lower.

Mr. Gall said he agreed.

Mr. Stern believes they established that the ground elevation is lower in the proposed development than the Fairways. He asked how many feet lower.

Mr. Gall estimates 5 to 10 ft.

Mr. Schneider said turning to D-10. Again, this was derived from the CAFRA plan approved by the NJDEP rather than the GDP because the CAFRA plan approved by the NJDEO has elevations and the GDP does not.

Mr. Gall said yes.

Mr. Schneider said so what exhibit D-10 shows is that if you now have a home adjacent to a golf course, you see the golf course next door.

Mr. Gall said correct.

Mr. Schneider said it also shows that if that golf course is developed with residential units and you now have a home adjacent to a golf course post development, you are going to have a home adjacent to another home.

Mr. Gall said yes or a basin.

Mr. Schneider asked if there is a basin depicted on D-10.

Mr. Gall said no.

Mr. Schneider asked if he would agree that very often when a piece of land that is undeveloped is developed with buildings, you are going to see those buildings from the adjacent parcel.

Mr. Gall said yes, but if you were previously looking over a golf course and now, you are looking at the back of a house, that is much different, but that's out of my purview.

Mr. Schneider said that is what you would expect to happen when you develop a golf course.

Mr. Schneider is not sure what he is asking.

Ms. Donato objected. This witness is here on engineering issues. If she had presented it to discuss the visual impact, there would have been an objection. He is here to talk about the GDP.

Mr. Jackson said he is the one that brought it up when he answered the question about elevations.

Ms. Donato said she was objected to his last question.

Mr. Schneider believes the witness has already acknowledged that when you are next to something not developed and then you put a building on it, you're going to see the building. He asked what type of wall is depicted on D-7.

Mr. Gall said a modular block wall.

Mr. Schneider asked if the CAFRA permit requires that all of the retaining walls be modular block walls.

Mr. Gall said if the plans are part of the permit then yes.

Mr. Schneider said because the plans state that every retaining wall will be a modular block wall.

Mr. Gall said that is what they depicted.

Mr. Schneider said they depict every wall as a modular block wall.

Mr. Gall said they provided a typical modular block wall that they would build.

Mr. Schneider asked which exhibit depicts a retaining wall that will intrude on property in the adjoining municipality.

Mr. Gall said D-9.

Mr. Schneider said if he heard his testimony correctly, he said if they construct a modular block wall, it would then intrude into the adjoining municipality.

Mr. Gall said correct. He used what the engineer provided in the CAFRA application

Mr. Schneider said the GDP application does not say one way or another that they are going to use modular block walls.

Mr. Gall said it does not say anything.

Mr. Schneider said what is before this board is not the CAFRA application, but the GDP application.

Mr. Gall said what is before this board is the feasibility and how can you determine the feasibility without knowing what kind of retaining walls are going to be building.

Mr. Schneider said GDP application is what is before the board, not the CAFRA permit.

Mr. Gall said they included the EIS as part of this application, so he is assuming it is all fair game and that was part of the CAFRA permit.

Mr. Schneider said Ms. Donato stated that what is before this board is the GDP application and not the CAFRA permit.

Mr. Gall is confused because they have been intermingling the EIS on the CAFRA and saying do not look at the plan but look at the EIS.

Mr. Schneider had not mentioned the EIS

Mr. Gall said it is in the application.

Mr. Schneider asked if knows whether it is the GDP application or the CAFRA permit before this board.

Mr. Gall said they are virtually identical.

Mr. Schneider said his question which is before this board.

Mr. Gall said the GDP application as well as the EIS from the CAFRA permit.

Mr. Schneider said the GDP application does not say that they are going to be these modular block retaining walls.

Mr. Gall said it does not tell the board anything.

Mr. Schneider is asking that it does not say that the retaining walls will be modular block retaining walls.

Mr. Gall said it does not say anything.

Mr. Schneider's question is whether it says that there are going to be modular block retaining walls.

Mr. Gall said it does not say whether they are going to be crib walls, sheet pile walls, it does not say anything.

Mr. Schneider said there are retaining walls that could be built that would not intrude into the neighboring municipality.

Mr. Gall does not agree as you are going to need construction widths, you are going to need excavation, you are not just going to put a thin line on a piece of paper and install a wall. You are going to have construction equipment, you drive sheeting, you are going to need a crane, you need all kinds of stuff. But if he is talking about widths of 20 feet and these walls will not accommodate that.

Mr. Schneider said any retaining wall of any engineering type would have to intrude 20 ft into the neighboring municipality.

Mr. Gall would say that in order to construct those walls you are going to intrude one way or the other.

Mr. Schneider said 20 ft.

Mr. Gall did not say 20 ft, crossing a property line is crossing a property line. It is no difference whether you are 1 ft or 20 ft, it is trespassing.

Mr. Schneider asked if it his testimony with a reasonable degree of engineering certainty that the GDP application seeks setback variances from the 20 ft setback.

Mr. Gall did not see anything in the application that he read.

Mr. Schneider asked if he testified that many of the lots would not satisfy the 20 ft setback.

Mr. Gall said it is confusing because the lots show that they are half the distance to the roadway, yet the table specifically says they comply. It says 20 ft when it is 11 ft, a hundred and three times.

Mr. Schneider asked if he is saying with a reasonable degree of engineering certainty that this applicant is seeking a hundred and eleven variances from the 20 ft setback.

Mr. Gall said you cannot make an engineering certainty answer based on an application question. That is not an engineering question.

Mr. Schneider said the answer is you are not saying that with a reasonable degree of engineering certainty.

Mr. Gall does not know what he is saying.

Mr. Schneider asked if it his testimony that the GDP application requires a variance from the 20-foot road setback on more than 100 lots.

Mr. Gall was just pointing out that they do not meet the planned unit development ordinance.

Mr. Schneider said because they would require a variance from the 20 ft setback.

Mr. Gall did not say that, but he is not a planner and he would not know what kind of variances they might need.

Mr. Schneider asked if it his testimony with a reasonable degree of engineering certainty that over 100 lots do not satisfy the 20 ft setback requirement.

Mr. Gall said correct.

Mr. Schneider said could the board not simply remedy that by conditioning a GDP approval on the applicant satisfying the 20 ft setback requirement.

Mr. Gall said they would lose a lot of homes.

Mr. Schneider said that condition would address his concern is that not correct.

Mr. Gall said sure, but why not do an application that meets that and use those number of units.

Mr. Schneider said the application does stayed in the table that all of the lots meet the 20 ft setback requirement.

Mr. Gall said it does. It is inconsistent with what is shown on the plan.

Mr. Schneider said the stormwater management plan for the CAFRA permit was was much lengthier than the stormwater management plan submitted with the GDP application.

Mr. Gall does not recall.

Mr. Schneider asked if it is his testimony that there's missing information from the stormwater management plan submitted as part of the GDP application.

Mr. Gall said yes, stormwater routing, there's watershed areas missing from being depicted on the existing and proposed contributing watershed areas, routing calculations. The stormwater piping routing if there were any.

Mr. Schneider said the routing calculations are in the stormwater management plan for the CAFRA application.

Mr. Gall said from what he recalls, they are.

Mr. Schneider said the piping routing is in the stormwater management plan for the CAFRA application.

Mr. Gall said correct.

Mr. Schneider said the NJDEP issued the CAFRA permit with a finding that all of the stormwater management requirements were satisfied.

Mr. Gall disagrees, they are human.

Mr. Schneider understands that he disagrees but the NJDEP had this additional information before it.

Mr. Gall said yes.

Mr. Schneider said the 48-inch pipe is depicted on the approved CAFRA Plans

Mr. Gall does not recall but when reviewing the GDP, why were the calculations not submitted for this application.

Mr. Schneider said that gets to the question of whether a GDP application is anticipated to have the same level of detail as a preliminary and final site plan application, which he thinks is not an engineering question either it's more of a legal question.

Mr. Gall agrees.

Mr. Schneider said his firm submitted two reports to the NJDEP on the CAFRA plan that came out of the settlement agreement with DEP.

Mr. Gall does not recall.

Mr. Schneider said he signed a plan dated November 29, 2017.

Mr. Gall does not remember. He does not have the report in front of him.

Mr. Schneider showed him a document dated November 29, 2017 to refresh his recollection.

Mr. Gall said he remembers the document.

Mr. Schneider showed him another document on his firm's letterhead also signed by him and Mr. Gallagher dated December 20, 2017. He asked if that refreshes his recollection as to whether he submitted a second letter to the NJDEP commenting on the plan that resulted from the CAFRA settlement.

Mr. Gall said yes.

Mr. Schneider said he raised concerns with the NJDEP concerning the retaining walls in those letters.

Mr. Gall said yes.

Mr. Schneider said the NJDEP ultimately issued the permit notwithstanding his objection to the 3.9 miles of retaining walls.

Mr. Gall said yes.

Mr. Schneider said he does not agree with the NJDEP, but they issued the permit.

Mr. Gall simply pointed out that those walls would require significant amount of maintenance and cut off some of the tree save areas and just require a lot of maintenance.

Mr. Schneider said one of the issues he raised concerned the groundwater levels and impacts of basins on groundwater levels, and the feasibility of the basin's in light of the seasonal high-water table.

Mr. Gall said correct.

Mr. Schneider said the NJDEP nonetheless issued the CAFRA permit despite those objections.

Mr. Gall said yes.

Mr. Schneider said there was an operations and maintenance manual submitted to the NJDEP as part of the CAFRA applications.

Mr. Gall does not recall.

Mr. Schneider said he also raised issues concerning the seepage pits in his comments to the NJDEP on the CAFRA permit application.

Mr. Gall said it was a while ago. He knows they did raise the issue, but he does not know the details.

Mr. Schneider said the NJDEP nonetheless issued the permit.

Mr. Gall said correct.

Mr. Schneider said he raised issues regarding the ability of the proposed basins to recharge all of the stormwater in his comments on the CAFRA permit application.

Ms. Donato objected. This is not a question of whether or not Princeton Hydro registered complaints to the NJDEP and raised issues about the CAFRA permit, that is not the issue before this commission. They will concede they oppose the CAFRA permit, the NJDEP denied the CAFRA permit, they asked for a settlement and a few days later they got a settlement behind closed doors. It is on appeal, they objected to it and continue to object to it.

Mr. Jackson said she repeatedly stated that this settlement was behind closed doors. He asked if she is suggesting there was something clandestine or improper about the settlement with the NJDEP.

Ms. Donato said it was approved with what is called alternate dispute resolution. Mr. Gross wrote a letter to the to the office of legal affairs and had obtained an approval after the denial, that is it. She is not suggesting anything else except that is how it was done.

Mr. Schneider cannot respond to why he thinks this may be relevant. This witness has said the GDP application is virtually identical to the CAFRA application. It's a GDP, so yes, it's not fully engineered and this board has to make a determination as to whether it looks like it may be feasible, that they may be able to get site plan and subdivision approval and he thinks the board may, if it wants, consider the fact that the NJDEP has looked at these issues

Ms. Donato said if she had engaged in that colloquy Mr. Jackson would have said it is not time for summation. That is his summation. That is his position. they have their position. She thinks the rules need to be applied uniformly and not where she makes an argument, it is a summation and she is not allowed to make it.

Mr. Schneider said various other of the issues he has raised today, his firm also raised in comments to the NJDEP on the virtually identical CAFRA plans.

Mr. Gall said that is a pretty vague question. He does not know what they objected to and what they did not versus that plan and this plan.

Mr. Schneider said an issue raised was construction impacts.

Mr. Gall said that is correct.

Mr. Schneider said the NJDEP nonetheless issued the CAFRA permit. Impacts on the flood hazard area and riparian zones were raised in your comments to the NJDEP on the virtually identical CAFRA permit.

Mr. Gall said yes, he did not bring it up in this one.

Mr. Schneider said boxing in the tree save areas was a comment he raised to the NJDEP.

Mr. Gall said maybe, it was two years ago. He would have to have the report in front of him.

Mr. Schneider said maintenance for stormwater management systems for major development under the NJDEP stormwater management rules. The obligations imposed on a municipality under the permit referred he referred to.

Mr. Gall said the municipal separate storm water system.

Mr. Schneider said that would apply not just to this development but to all major development in the Township of Lakewood,

Mr. Gall said yes.

Mr. Schneider said he has pointed out that were the board to approve the GDP, it would be appropriate to mandate that there be a homeowner's association that is responsible for maintenance of the stormwater management system.

Mr. Gall does not think he said that. He stated if there was one, they are responsible, but the municipality ultimately is responsible

Mr. Schneider said the same as it would be in any other major development.

Mr. Gall said yes, but he stated was the fact that this is this is a massive undertaking for a municipality to enforce other than other developments.

Mr. Schneider said all developments there will be some undertaking for the municipality to enforce.  
Mr. Gall has not seen one with 556 seepage pits and the infiltration basins and dead ends and no way for the stormwater to discharge down.

Mr. Schneider said infiltration basins encourage groundwater recharge.

Mr. Gall said that is correct.

Mr. Schneider said that is something the NJDEP wants.

Mr. Gall said they want them to work, yes.

Mr. Schneider said the groundwater recharge is considered good for the environment.

Mr. Gall said if it recharges, yes,

Mr. Schneider has not reached the conclusion that you cannot build groundwater recharge basins that would work in this development idea. He asked if it is his testimony that these groundwater recharge basins would not work.

Mr. Gall said from what he recalls from their CAFRA review is that the bottom of those basins were a lot closer to groundwater based on the existing ponds then was provided in the documentation.

Mr. Schneider said he raised that concern with the NJDEP.

Mr. Gall said yes.

Mr. Schneider said they issued the CAFRA permit nonetheless.

Mr. Gall said yes.

Mr. Stern questioned if he is saying they will not work or that it appears that they may not work.

Mr. Gall said he is going from recollection. Their concern was that the soils data that was provided was not consistent with what they would have looked at as professionals as far as seasonal high groundwater.

Mr. Schneider asked what his testimony was with regard to the parking areas on the rear of the houses.

Mr. Gall said they are putting structures in the perimeter boundary setback.

Mr. Schneider asked if he examined the perimeter boundary setback for the existing Fairways at Lake Ridge adult community.

Mr. Gall said no.

Mr. Schneider said he has no knowledge one way or another whether there are parking areas within the perimeter boundary setback for the Fairways at Lake Ridge adult community.

Ms. Donato objected it is a different ordinance.

Mr. Gall walked the perimeter and he did not see parking lots in the back of those houses, no.

Ms. Donato's objection is that there is a different ordinance that governs the Fairways adult community project. It is not the same ordinance that this application is proceeding under, so it is really not relevant to compare it to a different development even if they had something of that nature.

Mr. Schneider said if ordinance A has a perimeter boundary setback requirement and ordinance B has a for perimeter boundary setback requirement then what is done with the perimeter boundary setback in development A under ordinance A, they have some bearing on how the municipality.

Mr. Stern said Ms. Donato is saying they are there apples and oranges.

Mr. Schneider is saying they are apples and apples.

Mr. Gall was simply asked if there was a structure in the perimeter setback in the proposed development and there are.

Mr. Schneider asked if he investigated whether there is a perimeter setback to the Fairways adult community.

Mr. Gall said no.

Mr. Schneider said then he has no knowledge as to whether there are structures in any perimeter setback in the Fairways adult community.

Mr. Gall has not seen any parking lots, no.

Mr. Schneider asked if he saw stormwater management basins.

Mr. Jackson is going to agree with Ms. Donato. He thinks its limited relevance what kind of variance is the other...

Mr. Stern asked if Ms. Donato will have any other witness besides her planner at the next meeting.

Ms. Donato said no but she does think it is imperative that the author of the fiscal impact study be brought in to testify. They were not brought in to testify and there are a number of issues as it is one of the very explicit requirements of the general development plan in the ordinance.

Mr. Jackson asked if the applicant has any issue producing that witness.

Mr. Schneider does not think it is required. All that is required is that they submit a fiscal impact report.

Mr. Jackson said she can subpoena the board.

Mr. Stern said before that, there is a report that Mr. Schneider's client produced, and she would like to be able to cross-examine the person who wrote the report.

Ms. Donato said yes.

Mr. Schneider does not think it is required.

Ms. Donato said it has to do with due process of law, the right to cross-examine a witness and the right to find out the basis of the report.

Mr. Stern asked if there any other issues that she sees in the road ahead. He is all for due process but also for bringing things to a conclusion.

Ms. Donato said depending upon the testimony of the fiscal impact, they may bring in a witness to critique the fiscal impact report. She cannot cross-examine a report if the person who authored the report is not here.

Mr. Stern asked what the relevance of fiscal impact report is to the GDP.

Mr. Jackson said it is an element of the proofs and there are different components of what it requires. If he recalls the fiscal impact report in this case was somewhat limited. He thinks it was actually on that one of the plans.

Mr. Schneider said it was a separate document.

Mr. Jackson asked that she submit a memorandum to the chair directed through him and prepare a proposed form of subpoena and then he will make the recommendation and they will address it before the next meeting.

Mr. Stern asked if it is something he decides, or a court decides.

Mr. Jackson said under the under the administrative procedure rules that govern planning boards and applicants, there is a mechanism that Ms. Donato can take advantage of. It would be up to the board.

Mr. Jackson asked Mr. Schneider if he makes a recommendation after discussing this with Mr. Stern that they think the fiscal with impact witness should come in, would produce him.

Mr. Schneider said he will talk to his client.

Mr. Jackson asked that that issue be put on an agenda so it will be on notice that it may be addressed at that meeting. He thinks it is an internal administrative decision, but he wants to do it in public.

Mr. Schneider would say that whether this witness appears and is cross-examined or not, an objector does not have the right to wait until it cross-examines the witness and then say a hearing has to be kept open because they have decided they now want to bring in an expert.

Ms. Donato is not making that position. She was proposing that as part of the direct proof of the applicant, they should have presented the the author of the fiscal report because it is basic due process and they have the right to cross-examine witnesses. If the fiscal impact author had testified in the direct case, she would have known right then and would bring a witness in for the next hearing. She has raised this issue previously. What she thinks should happen is finish the redirect of Mr. Gall and then the fiscal impact witness should testify, then they would provide their planner and then at the following meeting they can then bring in their fiscal impact witness. If she can get a decision in advance, she may be able to truncate it and just bring in a witness on fiscal impact.

What Mr. Stern does not want to happen is to have this board dedicate another four hours to fiscal impact. They cannot have every single issue be four hours because they will never get this done and the board has other applicants. They have already dedicated twenty hours of this, and he understands it is very important, but he doesn't want to dedicate forty.

Ms. Donato said if she can get a decision as to the author of the report coming, she can then get a fiscal expert for another meeting.

Mr. Jackson said the ordinance just says a report has to be submitted and perhaps Ms. Donato can argue as to the strength and sufficiency of their case by not producing that witness. They will see what her memorandum says. Nothing would preclude her from bringing in her own expert on that topic whether someone comes in to discuss it or not from the applicant but looking at the language in the ordinance, it does say report.

A motion was made and seconded to carry the application to the September 10, 2019 meeting.  
All were in favor.

- 6. APPROVAL OF MINUTES**
- 7. APPROVAL OF BILLS**
- 8. ADJOURNMENT**

The meeting was hereby adjourned. All were in favor.

Respectfully submitted  
Sarah L. Forsyth  
Planning Board Recording Secretary