

**Borough of Ho-Ho-Kus
Bergen County, New Jersey
Planning Board Minutes
May 15, 2014
Regular Meeting/Public Session**

Meeting Called to Order at: 7:35PM

Open Public Meetings Statement: Read into the record by the Board Secretary.

Roll Call: Messrs. Berardo, Corrison (absent), Pierson (absent), Reade, Cirulli, Newman (absent), Iannelli, Councilman Rorty, Chairman Hanlon, Mayor Randall

Also in Attendance: Mr. Gary Cucchiara, Board Attorney; Mr. David Hals, Borough/ Board Engineer; Mr. Ed Snieckus, Borough Planner; Ms. JoAnn Carroll, Board Secretary.

Approval of Minutes with Corrections: Cirulli, Reade
April 10, 2014

All Board members present approve 4/10/14 minutes.

Correspondence:

Approval Letter: Mr. Timothy Santo, 217 First Street, 1st Floor, Block 1016, Lot 5: approval of a new business application/chiropractic office.

Chairman Hanlon: stated an approval letter was sent to Mr. Santo for his chiropractic business.

Ongoing Business:

Hollows at Ho-Ho-Kus, Chamberlain Developers, W. Saddle River Road/Van Dyke Drive, Block 802, Lots 1, 2, 3, 4 and 10: major subdivision application; the applicant proposes to construct and market single family dwelling units on each of the properties; completeness review.

Chairman Hanlon: asked the Board to open up their plans at this time; discussed evacuation procedures in case of an emergency; named the Borough's employees and volunteers who were on hand this evening to help in that event; stated the Planning Board has a very strict set of guidelines which they work with through the courts and the State; the Planning Board members are made up of residents with the exception of Mr. David Hals who is the Borough Engineer, Mr. Ed Snieckus who is the Borough Planner; neither of which vote on the Board; the Borough Administrator, Mr. Don Cirulli, is on the Board and does vote; the rest of the members are fully employed; not retired and donate their time; the Board normally meets on the second and third Thursday of the month; the Board tries to protect the Borough the residents and Board; reviewed the meeting process for the audience; all cell phones should be shut off; no video recording devices or recording devices are allowed;

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there is one stenographer taking notes and the Board Secretary makes an audio tape of the meeting as well as types minutes for the meeting; the Bergen County Bar Association states the Board can ask the audience to shut off all devices; this is a public meeting; meeting will end at 11PM tonight; will not go beyond this time regardless of where the testimony is at the time; all discussions take place in front of the microphone to keep a legal record of the proceedings; if someone is not able to approach the dais, arrangements will be made to have the microphone brought to their seat; 200' list residents are given first priority to speak; residents need to be truthful in their testimony; they will be sworn in; perjury if false information is given to the Board; there are special guidelines and rules that are followed by the Board; explained voting procedure and resolution.

Mr. Whitaker: stated he is from the law firm McDonnell and Whitaker and this is the continuing hearing of the Hollows at Ho-Ho-Kus application; first witness had completed direct testimony; all cross examination by residents had been completed; cross examination left for Mr. Inglima; he requested to proceed that way this evening; this is where the meeting should start this evening.

Chairman Hanlon: asked if Mr. Whitaker would be speaking regarding the Shade Tree Commission report or Fire Department report.

Mr. Whitaker: stated he would discuss at a later time.

Mr. Inglima: stated his name for the record and that he was representing the following residents:

Clifford and Silvia Bone, 49 Brandywine Road, Block 802, Lot 7
Mark and Neyda Dabbagh, 55 Brandywine Road, Block 802, Lot 8
Anthony and Laurie DiGiacomo, 65 Brandywine Road, Block 802, Lot 9
John and Mary Hayes, 35 Brandywine Road, Block 802, Lot 6
Matthew and Allison Westfall, 789 W. Saddle River Road, Block 809, Lot 4
Russell and Emmy Lou Borgman, 752 W. Saddle River Road, Block 805, Lot 21
Edward and Randi DeBruyn, 801 W. Saddle River Road, Block 809, Lot 3
Paul and Robyn Erickson, 815 W. Saddle River Road, Block 809, Lot 2
Kenneth and Leah Malley, 764 W. Saddle River Road, Block 805, Lot 22

Owners of nine separate properties; most located within 200'; previously requested Mr. Whitaker provide additional information for review by his expert witness; drainage design and methods and calculations that he testified to; some materials were provided at the last meeting; asked if any of those documents been filed with the Board.

Mr. Whitaker: stated, "No."

Mr. Inglima: asked if there would be an objection to filing those documents with the Board.

Mr. Whitaker: stated, "Yes," the materials have no relevancy.

Mr. Inglima: stated he was referring to the materials that were provided to him by Mr. Whitaker from his client and his client's experts; they are the product of his expert and they are subject to his cross examination and should be filed with the Board so the Board is aware of what is being discussed.

Mr. Whitaker: stated that no assumptions should be made; as they are introduced the relevancy will be decided; doesn't want to bog down the Board with documentation.

Mr. Inglima: asked if any of the materials that he received last week were submitted to Mr. Hals.

Mr. Whitaker: stated, "No"; Mr. Inglima sent a request for information; responded to that request; Mr. Inglima's letter copied the Board Attorney; with this being the case, Mr. Whitaker copied the Board Attorney on his transmittal letter that was sent to Mr. Inglima; it was not sent to the Board or any of the Board's professionals.

Mr. Inglima: asked Mr. Palus what instructions he received from his client when he was designing the subdivision as to the size and location of the various lots.

Mr. Palus: stated he was requested to provide a subdivision conforming to the Ho-Ho-Kus ordinances.

Mr. Inglima: asked if Mr. Palus had reviewed the Borough's ordinances before designing the subdivision.

Mr. Palus: stated he had.

Mr. Inglima: asked for confirmation that Mr. Palus had stated that the appearance of the layout of the lots were compatible to the existing conditions around the neighborhood.

Mr. Palus: stated that was a fair statement.

Mr. Inglima: asked if Mr. Palus reviewed any particular properties or was the area reviewed generally, and if so what area did he look at.

Mr. Palus: stated he looked at the area in general and used the Borough of Ho-Ho-Kus tax map.

Mr. Inglima: asked if Mr. Palus looked at abutting lots.

Mr. Palus: stated he looked at the lots relative to the size of the property; he used the tax map; he received a general sense of the existing improvements by site inspection.

Mr. Inglima: asked if Mr. Palus considered WSRR south of Hollywood Avenue in the general area of the site.

Mr. Palus: stated it is in the general neighborhood but does not abut the site.

Mr. Inglima: asked if his scope only included areas that abut the site.

Mr. Palus: stated “No” but those sites are more pertinent to the site.

Mr. Inglima: asked if any properties were looked at north of Hollywood Avenue on either the east or west side of WSRR.

Mr. Palus: stated “No.”

Mr. Inglima: asked if any properties on Brandywine were considered.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked if he looked at Brandywine south of Van Dyke.

Mr. Palus: stated “No.”

Mr. Inglima: stated that Mr. Palus confined his review to the areas that either abut the site or across Brandywine from the lots that abut the site.

Mr. Palus: stated he looked at the areas that were closest to the site.

Mr. Inglima handed out Sheet 8 of the Borough of Ho-Ho-Kus tax map to the Board, Mr. Whitaker and Mr. Palus; Exhibit O1: sheet 8 of the Ho-Ho-Kus tax map marked March 15, 2014.

Mr. Inglima: stated Exhibit O1 constitutes a copy of a section of the tax map of the Borough of Ho-Ho-Kus sheet 8; to his knowledge it is the current version of the tax map; asked if portions of the tax map are shown on the cover sheet of the plans.

Mr. Palus: stated this was correct.

Mr. Inglima: stated there are a number of lots that are located in the vicinity shown on the tax map that he had marked as O1, that are larger than the lots being proposed on the applicant’s site.

Mr. Palus: stated there are larger and smaller lots.

Mr. Inglima: stated if they were to look at the lots that directly abut the site, Lots 6 & 7, are these larger than what is being proposed on his site.

Mr. Palus: stated they are larger than some of the lots but not all of the lots.

Mr. Inglima: stated there are lots on the east side of Brandywine, 805-3, 805-4, 805-5, 805-6 and 805-7; they are larger than the lots being proposed.

Mr. Palus: stated not all of them.

Mr. Inglima: asked if the sizes of all of those lots had been compared to determine if they are larger or smaller.

Mr. Palus: stated the lots opposite Brandywine don't abut the subject property, but there is land that abuts individual homes, then there is the Brandywine right of way and then across the street and down the street; they are all located in the R2 zone.

Mr. Inglima: stated that Block 803 Lot 2 on Wayne Court is larger.

Mr. Palus: stated this is a corner lot and by ordinance has to be larger.

Mr. Inglima: asked if it is larger than the lots he is creating.

Mr. Palus: stated he doesn't know the exact square footage of Lot 2.

Mr. Inglima: asked Mr. Palus to look at Lot 4; asked if this lot was larger.

Mr. Palus: stated it can also be classified as a corner lot and therefore has to be larger.

Mr. Inglima: asked about Lot 1 in Block 801.

Mr. Palus: stated this is also a corner lot.

Chairman Hanlon: stated he would like to make a correction; that is an error; that lot is split in half; recently subdivided approximately 3 years ago.

Mr. Inglima: referred to WSRR on the east side; there are Lots 2, 3, 4, 5, 6, 7; all larger than anything that is being proposed.

Mr. Palus: stated they are larger; they back up to the Saddle River; significant portion of this property is located within a flood plain which are environmentally sensitive areas; while they do have a larger square footage, there usable area is not necessarily larger.

Mr. Inglima: asked if Mr. Palus had studied the difference based on environmental conditions.

Mr. Palus: stated he did not do an environmental study on the lots across the street on WSRR.

Mr. Inglima: stated there are lots farther south on WSRR that are larger.

Mr. Palus: stated, as you move away from the area, those lots still back up to the river.

Chairman Hanlon: asked what Block was being referred to.

Mr. Inglima: stated Block 809.

Mr. Cucchiara: instructed Mr. Inglima to reference the Blocks when discussing locations to reflect accuracy.

Mr. Inglima: stated there are lots in the area that are much larger than what is being proposed.

Mr. Palus: stated there are some lots in the area that are larger than the lots being proposed but, again, many of them come with their own caveats; either corner lots or lots with significant environmental encumbrances.

Mr. Inglima: stated that obviously the lot that currently houses the principal dwelling on the applicant's site, Lot 10, is a large lot in relation to the other lots.

Mr. Palus: stated the existing property substantially exceeds the requirements of the R2 zone.

Mr. Inglima: stated Mr. Shell is on the north side of Hollywood Avenue and has a larger lot.

Chairman Hanlon: stated Mr. Shell is located in a different zone; R1 zone; acre plus properties.

Mr. Palus: stated when he was analyzing the proposed lots he followed the Ho-Ho-Kus ordinance for the zone of the property that it was in; did not follow the codes for other zones.

Mr. Inglima: stated the lot he just referred to was Lot 10, Block 305; Lot 11, Block 305 is 1.25 acres.

Mr. Palus: stated this was also a corner lot in the R1 zone.

Mr. Inglima: stated this property is directly across Hollywood Avenue from his site.

Mr. Palus: stated this was in a different zone.

Mr. Whitaker: asked if these lots were being referred to in the Exhibit O1.

Mr. Inglima: stated "No"; he was now referring to sheet 1 of the site plan.

Mr. Inglima: referred to Lot 28; NE corner of Hollywood and WSRR; 1.064 acres according to the map.

Mr. Palus: stated that according to the Borough's tax map Lot 28 is located on Valley Stream Lane; believes the Lot Mr. Inglima is referring to is Lot 26, not 28; again this lot is in the R1 zone and is a corner lot.

Mr. Inglima: asked if when Mr. Palus was considering the layout of the individual lots, proposed building footprints were shown on the plan.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked if the outline/envelope in which a house could be built on these lots is shown.

Mr. Palus: stated the building set back lines are represented.

Mr. Inglima: asked if any size restrictions are being proposed for any houses to be constructed on these lots.

Mr. Palus: stated there is 20% building coverage indicated on the zone table.

Mr. Inglima: stated that on the bottom of sheet 3, there is an indication of the relevant zoning criteria from the bulk standpoint in an R2 zone.

Mr. Palus: stated this was correct.

Mr. Inglima: stated that 20% is in the required column; all properties will comply with this.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked for Mr. Palus to show him where in the current Borough zoning ordinance there is a 20% limitation imposed on principal buildings in the R2 zone.

Mr. Palus: stated the Borough ordinances are obtained on line; they are the most current; some are printed out.

Mr. Inglima: stated he is referring to Section 85-10, subsection (g); “minimum open space requirements” .

Mr. Palus: stated he is referring to the zoning table of the ordinance.

Mr. Inglima: asked what the ordinance states; Section 85-10 subsection (g).

Mr. Palus: stated the lot coverage shall not exceed 20% of the land area of the lot.

Mr. Inglima: asked what the date of that ordinance was.

Mr. Whitaker: stated he had an ordinance in front of him as well, and if Mr. Inglima had an ordinance that he was working from he should provide it to Mr. Palus.

Mr. Inglima: stated the pages he is about to hand Mr. Palus were printed on March 5, 2014 from the version of the zoning ordinance that is found on line in the Borough of Ho-Ho-Kus website; stated he had not altered in any way the content of the ordinance.

Mr. Palus: stated the ordinance discusses the lot coverage for accessory structures; one story dwelling not less than 1,200 square feet; 1,600 square feet for a multi storied dwelling.

Mr. Inglima: asked if there was any subpart of (g) that indicates there is a 20% limitation on principal buildings in the R2 zone.

Mr. Palus: stated it speaks of improved lot coverage of 35%; the 20% limitation is not in this section of the ordinance.

Mr. Inglima: stated there were recent changes to the zoning ordinance that eliminated the 20% restriction; only restriction for principal buildings found in an R2 zone, given this specific revision, is the section which deals with the 35% limitation.

Mr. Palus: stated you couldn't get 35% just on building; would have to have a driveway and walkways.

Mr. Cucchiara: stated he would clear up this issue; the Borough recently revised the ordinance; in doing so, the provision with regard to principal lot coverage was inadvertently dropped out; the Borough is in the process of returning the 20% provision to the ordinance; did not want to curtail the cross examination; the 20% provision was intended to be there; issue will be before the Borough Council; anticipate this will be corrected very quickly.

Mr. Whitaker: stated his client went by the chart that was referenced in the ordinance; chart stipulates to the 20% amount; if it was inadvertently left out, it was not something that they jumped on and tried to do anything else with; stipulated to 20%.

Mr. Cucchiara: stated the Planner has been consulted and has worked on this issue and he will be here very shortly; it may be in Mr. Inglima's interest to question him on this issue; the 20% provision was intended to remain; will be returned to the ordinance in the same form it was there before in regards to building coverage.

Mr. Inglima: stated the reason it was raised is because he suspected it had been inadvertently omitted; never advised it was going to be reinstated.

Mr. Cucchiara: stated Mr. Inglima should have raised this issue with him during their conversations and he would have been happy to explain the situation to him.

Mr. Inglima: stated the fact of the matter is, if the applicant is bound by the representation of counsel that it will not seek to construct in excess of 20% of Planning Board Minutes, 5/15/14

the lot size it could certainly be included in a resolution if the Board was to grant approval.

Mr. Inglima: stated there would be other structures included in the impervious coverage of the lot that would be considered for purposes of the section that they were reviewing; minimum open space requirements for improved lot coverage.

Mr. Palus: stated any impervious surfaces have been included in the lot coverage calculation.

Mr. Inglima: stated the plan does not show impervious coverage by structures or calculations anywhere on site.

Mr. Palus: stated the plan does not propose any structures; conceptual only; individual lot development would require individual plot plans to be prepared and at that time the specific structures would be identified and the proper calculations provided.

Mr. Inglima: stated that on page 5 and 6, proposed driveways are shown; front stoop and walkway leading to the driveway shown; asked if this was accurate.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if any calculations were performed associated with the application for any of those areas.

Mr. Palus: stated "Yes."

Mr. Inglima: asked what was included.

Mr. Palus: stated he included buildings and driveways as part of the drainage calculations; shown conceptually; was within the 35% permitted.

Mr. Inglima: asked what Mr. Palus concluded.

Mr. Palus: stated that all of the proposed lots, conceptually, are conforming with the 35% permitted.

Mr. Inglima: asked if this is what Mr. Palus indicated as an outline of a proposed 2-story framed dwelling, a stoop, a walk and a driveway.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if any parts of the driveway within the right of way are included.

Mr. Palus: stated those areas are not included in the coverage calculations by ordinance; on structures on property.

Mr. Inglima: asked if any parts of the driveways were included for drainage calculations.

Mr. Palus: stated “Yes”; he included the entire driveways.

Mr. Inglima: asked if it would be fair to say that the driveways and the walkways are included in the drainage calculations for the system that is shown in the SE corner of the site.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if the new cul-de-sac is included as well.

Mr. Palus: asked in what way.

Mr. Inglima: stated for impervious coverage and drainage calculations.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked if any areas within the right of way of WSRR were included.

Mr. Palus: stated “No.”

Mr. Inglima: asked if he was proposing to create new impervious surfaces in the right of way.

Mr. Palus: stated there is a request by the Borough Engineer a proposed widening as well as some sidewalk.

Mr. Inglima: asked if Mr. Palus calculated the additional impervious surface that will be created by widening WSRR, any modifications of the intersection of WSRR and Hollywood Avenue that result in additional impervious or the sidewalk.

Mr. Palus: stated the proposed sidewalk and widening were done after the request by the Borough Engineer and after drainage calculations were provided.

Mr. Inglima: asked if Mr. Palus included in any of his calculations the area of the roadway that is being proposed from the point where the existing right of way line of WSRR crosses it; referred to sheet 5; area that is between the right of way line of WSRR as it extends currently across the frontage of the site and the point where the new curbs that are being proposed for his client’s roadway return to the sideline of the cartway of WSRR.

Mr. Palus: stated there is a very small area between the proposed inlets and the existing edge of WSRR that is not included in the drainage calculations because it is extremely small; negligible impact.

Mr. Inglima: (pointed to that area on the map); the area that is indicated between the right of way line and the edge of the cartway; not counted.

Mr. Palus: stated that water does not make it into the detention system so it is not included in the calculations.

Mr. Inglima: confirmed that the sidewalk north of the roadway intersection is not counted.

Mr. Palus: stated that was correct.

Mr. Inglima: confirmed that the road widening that is indicated with the cross hatching along the entire western side of the existing cartway of WSRR is not included.

Mr. Palus: stated “No”; those improvements were added to the plan at the request of the Borough Engineer after the drainage calculations were provided.

Mr. Inglima: asked if any of those areas would contribute water to the drainage system that his client is adding.

Mr. Palus: stated those areas will not go into the detention basin.

Mr. Inglima: asked if they will be collected by existing catch basins; an existing catch basin on the east side of WSRR or a new catch basin to be located opposite on the west side of WSRR.

Mr. Palus: stated the catch basin on the west side will collect the majority.

Mr. Inglima: asked if the new runoff will go straight into the catch basin.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked if it will be slowed down.

Mr. Palus: stated the area of widening within the existing municipal right of way for WSRR will not be part of their detention system.

Mr. Inglima: stated Mr. Palus had indicated in his testimony earlier that Mr. Palus had done a before and after comparison; he spoke of existing drainage conditions of the site; the areas that contribute runoff and the locations that the runoff goes to.

Mr. Palus: stated that was correct.

Mr. Inglima: stated that Mr. Palus indicated that the drainage for about 2/3 of the property runs generally in a southeasterly direction.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if any of that water currently goes out to WSRR.

Mr. Palus: stated the amount is minimal if any.

Mr. Inglima: asked if there is any water than runs off of WSRR on the west side of the crown of the existing pavement that comes into the site through the existing driveway opening.

Mr. Palus: stated he believes that water continues out towards WSRR.

Mr. Inglima: stated there is no curbing on the west side of WSRR.

Mr. Palus: stated that was correct.

Mr. Inglima: stated there is a lower elevation of topography where the driveway comes into WSRR than what is found to the north.

Mr. Palus: stated the topography of WSRR slopes from the intersection of Hollywood Avenue south to the entire length of the applicant's site.

Mr. Inglima: stated there are areas on the applicant's site that are located in the center of the driveway that is at 108; areas south that are lower.

Mr. Palus: stated the lowest elevation is the catch basin at 107.2, plus or minus.

Mr. Inglima: asked if Mr. Palus was speaking of the existing catch basin on ESRR.

Mr. Palus: stated the runoff continues along WSRR.

Mr. Inglima: stated water comes down from WSRR from Hollywood Avenue and it finds its way to the west edge of the pavement; assuming it doesn't get absorbed, it will go to the applicant's driveway and can come right into the applicant's driveway.

Mr. Palus: asked why it wouldn't get absorbed by the soft shoulder.

Mr. Whitaker: stated this is an assumption on the part of Mr. Inglima.

Mr. Inglima: asked if it was Mr. Palus' testimony that no water enters the applicant's site through the driveway from WSRR then he will move on.

Mr. Palus: stated there may be minimal water from WSRR; in the scheme of the overall development of the site, the water would be negligible and would not have a significant impact on the drainage calculations.

Mr. Inglima: stated that after the development is done, referred to sheet 5, there will be extra widening and extra pavement of the west side of the roadway; there will be a curb along that side of the road.

Mr. Palus: stated the plans do not show a curb.

Mr. Inglima: asked if there is a curb on the east side of the proposed sidewalk.

Mr. Palus: stated there was no curb on the east side of the proposed sidewalk.

Mr. Inglima: asked if it was requested of him by other agencies.

Mr. Palus: stated “No.”

Mr. Inglima: stated there is a roadway that will be widened with no curbing and no sidewalk; that water will not come down the road along the pavement.

Mr. Palus: stated the water will follow the slope of the pavement; there is a reasonable pitch along WSRR; it will continue to carry the water down WSRR.

Mr. Inglima: asked if any of the water coming down WSRR when it gets to the intersection of the new street, be collected in the two catch basins.

Mr. Palus: stated the intent is to have that water continue towards the proposed inlet on the west side of WSRR.

Mr. Inglima: stated a drainage report was done; supplemental report was done; asked if it was filed with Mr. Hals.

Mr. Palus: asked which supplemental report Mr. Inglima was referring to.

Mr. Inglima: stated he was aware of the initial report dated 11/7/13; supplemental report dated 3/8/14; both filed with the Board in reply to Mr. Hals; the most recent document Mr. Inglima has received is dated 5/7/14.

Mr. Palus: stated that is the second supplement report.

Exhibit O-2: MAP Engineering report/supplemental; dated May 7, 2014.

Mr. Inglima: asked when this report was filed with Mr. Hals.

Mr. Hals: stated it was filed with him after the last meeting.

Mr. Inglima: asked Mr. Palus to testify as to the purpose of this document and why it was submitted to Mr. Hals.

Mr. Palus: stated the intent of this report was to address the runoff to the existing inlet on the east side of WSRR and the subsequent 18 inch pipe which leads to that inlet.

Mr. Inglima: asked if he was requested to provide this information by Mr. Hals.

Mr. Palus: stated this report was done just to verify that the system was able to adequately contain the existing and the proposed runoff to that structure.

Mr. Inglima: asked for a timeline; stated Mr. Palus testified at the first hearing that he provided all drainage needed by the municipality and that it was found to be satisfactory.

Mr. Palus: stated that was correct.

Mr. Inglima: stated Mr. Palus appeared before the Board on 5/8/14 and provided this document to Mr. Inglima and to Mr. Hals; asked if Mr. Palus took this upon himself to provide or did a specific agency ask for this information.

Mr. Palus: stated it was prepared due to the obvious contentious nature of the application; simply done to verify a condition which is clearly true; didn't warrant detailed calculations; to document all eventualities, this was done as a supplemental calculation; the result of them shows the 18 inch pipe leaving the inlet has a capacity of 21.1 cfs; when the peak discharge is taken and the existing runoff, there is a peak inflow of 2.0 cfs; the pipe is approximately 10x oversized.

Mr. Inglima: asked if Mr. Palus had done a physical inspection of the catch basin in performing this report.

Mr. Palus: stated "Yes."

Mr. Inglima: stated that Mr. Palus indicated on the plans that there is an 18 inch pipe leading away from the catch basin in a southeasterly direction; there is a 12 inch pipe, whose source is unknown, which enters the catch basin more or less southwest.

Mr. Palus: stated this was correct.

Mr. Inglima: asked if Mr. Palus had taken a look at that catch basin and determined to his satisfaction that there is a 12 inch pipe there.

Mr. Palus: stated there are 2-12 inch pipes; this information was provided; both pipes are 2 ft. away from the catch basin as it goes across WSRR; completely clogged with some type of animal nest.

Mr. Inglima: asked if there is any siltation from storm water sedimentation.

Mr. Palus: stated there are 12 inch pipes which are basically closed.

Mr. Inglima: asked why those pipes are there.

Mr. Palus: stated that was a good question; his best guess is that at some point, or maybe even currently, there is a structure on the opposite side of WSRR; structure is no longer visible; proposing a new structure to be built as

part of this application; new pipes to cross WSRR to replace the 2 – 12 inch pipes.

Mr. Inglima: asked if Mr. Palus inspected the area of the applicant's site directly across from WSRR from that catch basin.

Mr. Palus: stated "Yes."

Mr. Inglima: referred to sheet 5; SE corner; if the pipes came from anywhere, asked if that would have been the location.

Mr. Palus: stated with the elevation they would come out above ground at that location.

Mr. Inglima: asked if Mr. Palus looked at the inside aspect of the client's property to determine if there was ever any kind of structure there that drained that area.

Mr. Palus: stated that area is extremely filled with leaves, debris; no visible structures; did multiple site inspections.

Mr. Inglima: asked if Mr. Palus was satisfied that there is no current condition of the SE corner of the applicant's property that contributes outflow to the existing catch basin.

Mr. Palus: stated he hasn't been able to find a structure.

Mr. Inglima: stated there is no evidence that water is flowing through it.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if there was silt present as well.

Mr. Palus: stated there are mostly leaves, sticks and what looks like an animals nest.

Mr. Inglima: asked if Mr. Palus made a video of the 18 inch pipe.

Mr. Palus: stated it was done by an independent company at his request.

Mr. Inglima: asked if this inspection was requested by a representative of the municipality or any other agency.

Mr. Palus: stated "No."

Mr. Inglima: asked if Mr. Palus took it upon himself to have this inspection done.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if an inspection was done of any other pipes in the area.

Mr. Palus: stated an inspection was done of the 18 inch pipe that ran down the hill.

Mr. Inglima: asked which pipe.

Mr. Palus: stated he was discussing the 18 inch pipe that comes out of the inlet and goes down to a manhole further south on WSRR; stated there is another pipe that leads from the catch basin down to the manhole.

Mr. Inglima: referred to the last page of Exhibit O2; there is a map that shows the location of those pipes.

Mr. Palus: stated that was correct.

Mr. Inglima: distributed a survey to the Board that was requested by Mr. Inglima from Mr. Palus.

Mr. Palus: stated the survey was not specifically requested.

Mr. Whitaker: stated Mr. Inglima's letter requested any plans and/or surveys that were used to prepare the plans; the proper question would be is this one of those documents that was referenced and used.

Mr. Inglima: asked if this document was prepared by an employee of Mr. Palus.

Mr. Palus: stated, "No"; it was prepared by DAB Surveying.

Exhibit O3: Control Survey; WSRR and Van Dyke Drive; DAB Engineering; original date of preparation October 21, 2013; four revision dates; most recent revision date is May 7, 2014.

Mr. Inglima: asked if the information shown on O3 was verified as accurate.

Mr. Palus: stated he is not a surveyor so he did not do an independent survey.

Mr. Inglima: asked if Mr. Palus had any reason to believe the information contained in Exhibit O3 was inaccurate.

Mr. Palus: stated he has reason to believe that it is accurate as can reasonably be established based on the existing field conditions.

Mr. Inglima: (placed exhibit on easel); referred to the 18 inch pipe from the catch basin on WSRR in a generally SE direction; referred to on plans as "18 inch RCP"; stated it also shows a 12 inch RCP extending in a southwesterly direction from the catch basin; that is what Mr. Palus described as 2 – 12 inch pipes.

Mr. Palus: stated that was correct; because of the enclosed nature of the inlet it wasn't possible to tell that there were 2 – 12 inch pipes; discovered there were two of them side by side after physically getting into the catch basin; removed the grade of the catch basin and getting inside.

Exhibit O-4: Colored picture of 2 – 12 inch pipes

Mr. Inglima: (showed Mr. Palus Exhibit O-4) asked if this was a picture of the 2 – 12 inch pipes that are located on the southwesterly wall of the catch basin.

Mr. Palus: stated they appear to be but he did not take the pictures.

Mr. Inglima: stated he took the pictures himself; asked if Mr. Palus testified that he couldn't go into the catch basin to see that there were 2 – 12 inch pipes.

Mr. Palus: stated when the survey was originally done, the surveyors operate from the road surface; in order to get into the catch basin, the iron grate is removed; not standard surveying practice; this was a more aggressive investigation of that inlet; that's when they saw the two pipes instead of one.

Mr. Inglima: referred to the 18 inch RCP which his consultant made a video tape of; leads into a manhole; along the edge of the pavement of WSRR; indicating a pipe that leads straight through the manhole generally in a northeasterly direction from the intersection of Brandywine and Valley Forge Way; that is indicated on the plans as a 24 inch RCP.

Mr. Palus: stated if that is what the survey says, then yes.

Mr. Inglima: asked if Mr. Palus had reviewed the interior of that pipe.

Mr. Palus: stated "No."

Mr. Inglima: asked if anyone videoed the area east of the manhole to which those pipes connect.

Mr. Palus: stated "no."

Mr. Inglima: stated there are notations on the plans that indicate the pipe is exposed and damaged.

Mr. Palus: stated he had inspected a portion of this pipe.

Mr. Inglima: asked which part was examined.

Mr. Palus: stated if you were to leave that storm manhole and walk easterly down towards the Saddle River, the pipe is underneath some driveways, etc.; eventually as you get further behind the homes on WSRR the pipe actually comes to the surface; top third of the pipe is visible.

Mr. Inglima: asked if there is a break in the pipe; did it settle or erode; undermined in some way and came loose.

Mr. Palus: stated that the pipe, as you move down towards the river, does appear to be damaged; not the condition when it was initially installed.

Mr. Inglima: stated it is indicated that the pipe is exposed and damaged; asked what the daylight and clogged notation referred to.

Mr. Palus: stated the pipe discharges to daylight and there is a lot of debris around the end of the pipe.

Mr. Inglima: asked if it would be fair to say that when the water reaches that part of the pipe, it emerges in an upward direction; comes up higher than the end of the pipe.

Mr. Palus: stated that he believes over time there has been debris that has been washed into that pipe down from WSRR; river floods, coming up from the river; he cannot say where that debris came from; constantly draining.

Mr. Inglima: asked if he had ever been present when there was water moving through that pipe and out to daylight.

Mr. Palus: stated when he was present there was no rainfall so then there was no water.

Mr. Inglima: asked if the pipe was more or less dry.

Mr. Palus: stated more or less.

Mr. Inglima: asked if there is any recommended action for a pipe with a break near its terminus.

Mr. Palus: stated it is a Borough of Ho-Ho-Kus pipe and he is not going to tell them how to maintain it.

Mr. Inglima: asked his opinion as an engineer.

Mr. Palus: stated that he has the opinion that a properly functioning, fully, intact pipe would be better than what is there now.

Mr. Inglima: asked if Mr. Palus had any idea if that pipe currently is burdened by the conditions at its easterly terminus and is unable for water to flow efficiently.

Mr. Palus: stated he doesn't know specifically but he does know that when he met with the neighbors where the pipe runs through their property, the neighbor relayed to Mr. Palus that this pipe is sometimes a problem; Borough has to come and clean it out.

Mr. Inglima: asked if Mr. Palus had discussed with Mr. Hals or any other Borough representative corrective action that needs to be taken with respect to this pipe.

Mr. Palus: stated he will leave the maintenance of the pipe to the Borough representatives and he did not discuss it with Mr. Hals.

Mr. Inglima: asked if Mr. Palus discussed the condition of this pipe at its easterly terminus.

Mr. Palus: stated “No”, but he was provided with the document that Mr. Inglima is referring to.

Mr. Inglima: stated that Mr. Palus had testified earlier that there would be no adverse effect on any of the existing drainage systems of the municipality caused by the construction proposed by this subdivision; asked if he wanted to modify his statement.

Mr. Palus: stated “No.”

Mr. Inglima: referred to a SW direction from the manhole; an 18 inch pipe and a 24 inch pipe had been discussed; manhole on east side of the right of way of WSRR; asked if the source was determined of the 24 inch RCP on Brandywine or any other street.

Mr. Palus: stated the 24 inch pipe leaves the manhole on WSRR and based on the best available survey, it enters another storm manhole at the intersection of Valley Forge and Brandywine; from there it receives inflow from another manhole very close to that intersection as well as two B inlets further west on Brandywine Road.

Mr. Inglima: stated the B inlets were indicated on his plan; located at the place where the common boundary between lot 8 and lot 9 in Block 802 meet the right of way line of Brandywine.

Mr. Palus: stated they are relatively close to that.

Mr. Inglima: stated there is one there then one that is basically across the street from it.

Mr. Palus: stated that was a fair assessment.

Mr. Inglima: asked Mr. Palus if he knew of any other drainage structures that are connected to the two inlets that are indicated as B inlets on Brandywine.

Mr. Palus: stated there is a 4 inch pipe coming to the one in the south and a 5 inch pipe coming to the one in the north; doesn't know the origin of these pipes.

Mr. Inglima: asked if Mr. Palus had observed any of the conditions of runoff, drainage or stormwater movement through those pipes or through the Brandywine inlets at any time.

Mr. Palus: stated “No.”

Mr. Inglima: referred to the pipe that comes in from the SW; 24 inch RCP that Mr. Palus shows extending, more or less, across Brandywine Road; no origin of the 24 inch RCP other than what is indicated on the plan.

Mr. Palus: stated that based on the available survey information there is nothing upstream of that pipe.

Mr. Inglima: asked if there was a review done of the drainage system in the neighborhood generally to the SW of Brandywine in order to determine the source of the pipe.

Mr. Palus: stated the pipe appears to head uphill towards Valley Forge Way; leaves the right of way; can't follow any further; at that point it moved away from the area of interest.

Mr. Inglima: asked Mr. Palus if he knew how much water flowed through this pipe right now under various storm conditions.

Mr. Palus: stated he could not give the specific number; does know that those 2 inlets on Brandywine are two of the very few drain structures in that neighborhood.

Mr. Inglima: asked when Mr. Palus considers the design of a structure, does he take into account the entire drainage area that flows through that neighborhood.

Mr. Palus: stated those inlets are downhill of the applicant's site; it goes up on the other side of the road; at some point you stop chasing the entire drainage area across the town.

Mr. Inglima: stated that Mr. Palus was proposing to connect a new 15 inch pipe to an existing catch basin on WSRR that will drain his system.

Mr. Palus: stated this would be the proposed outlet of their system.

Mr. Inglima: stated there will be increased runoff on WSRR associated with the widening of the roadway; sidewalk and additional areas of pavement created, whether they are within the right of way or on the applicant's property, that are downstream of the inlets that he is proposing; all that water going into the same catch basin that are flowing out to the 24 inch pipe.

Mr. Whitaker: asked for the specific areas to be identified.

Mr. Inglima: identified the area as the new pavement that is being created on the westerly side of WSRR; that will flow drainage directly into the catch basin on WSRR.

Mr. Palus: stated the side where the road is being widened, that drainage will go to the proposed inlet on the west side of WSRR.

Mr. Inglima: stated the area of pavement that is between the new inlets at the east end of the cul-de-sac and the cross hatched area of additional widening, that will flow to two inlets on WSRR.

Mr. Palus: stated there is only one inlet on the west side.

Mr. Inglima: asked if they are connected by a 15 inch pipe.

Mr. Palus: stated they will be.

Mr. Inglima: asked if it was all additional runoff.

Mr. Palus: stated it is all runoff.

Mr. Inglima: stated the sidewalk may contribute to runoff.

Mr. Palus: stated the sidewalk will have runoff that will go towards WSRR.

Mr. Inglima: stated there will be more water off the applicant's site going into the existing system that it does today; asked if Mr. Palus has calculated the additional runoff.

Mr. Palus: stated this was partially why he did the May 7th supplemental drainage calculations to document that the pipe on the inlet structure they are tying into can handle this runoff.

Mr. Inglima: stated Mr. Palus indicated the existing drainage area that goes to the 18 inch RCP on the last page of Exhibit O2.

Mr. Palus: stated "Yes."

Mr. Inglima: stated this is based on the existing pavement of the roadway.

Mr. Palus: stated it is only half the roadway; just the east side of WSRR starting at the Hollywood Avenue intersection; there are inlets up at the intersection of WSRR on Hollywood Avenue that capture the runoff from the intersection and comes northward and goes into a separate drainage system down Hollywood Avenue.

Mr. Inglima: asked if the cross hatched area on the last page of Exhibit O2 represents only half of the existing paved width of WSRR.

Mr. Palus: stated it was used to analyze the existing runoff going to the inlet on the east side of WSRR; the road is crowned so it is only half that side.

Mr. Inglima: stated that, today, only 0.076 acres, goes into the inlet.

Mr. Palus: stated that was correct.

Mr. Inglima: asked what will be the area that will go into that inlet or the one across the street after all the improvements are constructed.

Mr. Palus: stated he couldn't give the specific area without going into detailed calculations; can state that the peak runoff, including the existing, would be 2.02 cfs.

Mr. Inglima: asked if this is indicated just using a statement at the end of the report; no calculations that underlie his statement.

Mr. Palus: stated the calculations are about three inches on the same piece of paper above that statement; that is the conclusion; the supporting calculations are provided in that document.

Mr. Inglima: asked how much more water will go into the two inlets on WSRR after the improvements are constructed than goes into it today.

Mr. Palus: stated this information is in the report; at the peak runoff you are looking at 1.46 cfs; 100 year storm.

Mr. Inglima: asked what the current condition is.

Mr. Palus: stated 0.56 cfs.

Mr. Inglima: stated the outflow will be almost tripled.

Mr. Palus: stated the composite will be 0.02 cfs and again the capacity of the 18 inch pipe is 21.1 cfs; more than ten times that.

Mr. Inglima: stated there will be approximately 3.5 times the existing outflow going through those two pipes.

Mr. Palus: stated one pipe.

Mr. Inglima: stated that will be more water.

Mr. Palus: stated an analysis of that pipe was done to make sure it could handle it.

Mr. Inglima: asked why an analysis of the 24 inch pipe wasn't done to see if it could handle it.

Mr. Palus: stated the runoff going down the 24 inch pipe down to the river; there is no detention upstream of that; when you go to the drainage calculations the peak rate of run off occurs relatively early in a storm; their proposed system has a detention basin so their peak runoff is delayed; their peak rate of runoff being discharged into the system occurs after the undetained peak rate of runoff to the existing pipes; while the overall volume may be additional, the peaks are offset so the impact is minimized.

Mr. Inglima: stated that none of the water that is being discussed that goes into the inlet from the street, from the sidewalk, is going through the detention system; it is going straight out through the 18 inch pipe.

Mr. Palus: stated the one portion of runoff from the additional pavement widening is not included in the detention calculations.

Mr. Inglima: stated that under these circumstances, had Mr. Palus performed any analysis of the amount of area that is drained by the 24 inch pipe that lies south and southwest of Brandywine.

Mr. Palus: stated there are a couple of 24 inch pipes.

Mr. Inglima: stated the 24 inch pipe that comes into the manhole along the east side of ESRR.

Mr. Palus: stated he did not do an analysis of that pipe.

Mr. Inglima: asked if the municipality requested that he perform an analysis of this pipe.

Mr. Palus: stated "No."

Mr. Inglima: asked if he knew the drainage area that is drained by that pipe in acres.

Mr. Palus: stated he did not do an analysis of this pipe.

Mr. Inglima: stated he wanted to ask Mr. Palus a question that calls upon Mr. Palus to answer in the hypothetical; if the 24 inch pipe was responsible for draining all of Valley Forge Way, Sleepy Hollow Drive, Washington Avenue, Prescott Road, Marion Court and a large portion of Pitcairn Avenue, would it change his opinion as to whether or not the assessment should include the existing runoff that is carried by that 24 inch pipe.

Mr. Palus: stated the 24 inch pipe is not contributing any water to it; assessment not changed; existing condition; not proposing to alter.

Mr. Inglima: referred to Exhibit O2; indicated the area that drains to the 18 inch pipe as being only the areas that are north of the existing inlet on WSRR that is depicted on the last page of O2.

Mr. Palus: stated approximately; this is such a small drainage area that once it is converted to acres it is a relatively small number.

Mr. Inglima: asked if there were areas of WSRR that lie to the south of that existing inlet; higher than the inlet and contribute runoff into it.

Mr. Palus: stated by the intersection of Brandywine Road there is the potential for some of that water to move toward that inlet; if that was true, he would have to revise the drainage area upwards from 0.076 acres, the existing run off to that pipe would still be about 1 cfs; nowhere near double.

Mr. Inglima: stated that Mr. Palus indicated on sheet 5 of 11 that there is a higher elevation to the south of the inlet.

Mr. Palus: stated this was correct.

Mr. Inglima: stated that a visible inspection of the area would lead anyone to conclude that there are substantial areas of WSRR that are south from that inlet that are at a higher elevation.

Mr. Palus: stated he would disagree with the use of the word substantial.

Mr. Inglima: stated more than 500 ft.

Mr. Palus: stated "No."

Mr. Inglima: asked if Mr. Palus reviewed the conditions of Brandywine Road and the inlets on that street in relation to the site.

Mr. Palus: stated the existing inlet on Brandywine Road has a grade elevation that is lower than the lowest elevation on the site.

Mr. Inglima: asked if Mr. Palus reviewed where the water that currently drains into the inlets on Brandywine Road originates.

Mr. Palus: stated not in detail.

Mr. Inglima: stated there are proposed lots along the westerly frontage of the property on Van Dyke Drive.

Mr. Palus: stated this was correct.

Mr. Inglima: stated Mr. Palus has shown driveways that will be constructed along that section.

Mr. Palus: stated that was correct.

Mr. Inglima: referred to sheet 6 of 11; asked if there was any proposing of widening of the pavement of Van Dyke Drive in the area of the lots that are indicated on sheet 6.

Mr. Palus: stated not at this time.

Mr. Inglima: asked if there was a possibility in the future there will be additional roadway widening constructed in that location.

Mr. Palus: stated he can't predict; the plans provided do not indicate any widening of Van Dyke Drive.

Mr. Inglima: asked if anyone had notified him if either an agency of the municipality or the County or the State, that widening the roadway near the intersection would be required.

Mr. Palus: stated "No."

Mr. Inglima: stated what Mr. Palus is showing is the existing pavement conditions to continue.

Mr. Palus: stated that was correct.

Mr. Inglima: asked how wide is the cartway along the frontage of the four lots that is being shown on sheet 6.

Mr. Palus: stated Van Dyke Drive is an irregular cartway; there is no one clear width; various measurements; the cartway on Van Dyke is not in the center of the right of way; shifted to their side of the road; larger portion of Van Dyke is on their half of the right of way; overall cartway width in front of the first driveway is at approximately 22 ft.; second driveway moving south approximately 20 ft.; third driveway moving south approximately 20 ft; fourth driveway opposite an intersection.

Mr. Inglima: stated the RSIS governs the designs of lots and streets.

Mr. Palus: stated not of lots; municipal ordinances dictate zoning.

Mr. Inglima: stated when roadways abut new residential lots, the RSIS controls the design of the roadways.

Mr. Palus: stated it controls the design of new roadways.

Mr. Inglima: stated that Mr. Palus was suggesting that because Van Dyke Drive exists today that they do not have to bring that roadway up to RSIS requirements.

Mr. Palus: stated that was correct.

Mr. Inglima: stated no matter what the conditions are there they connect driveways and construct improvements without making changes to the roadway to comply with the RSIS.

Mr. Palus: stated they are evaluated on a case by case basis based on the different agencies involved; in this case they are not proposing to widen the roadway.

Mr. Inglima: asked if Van Dyke Drive complies with the RSIS requirements that would be applicable to that category of roadway.

Mr. Palus: stated he had not done a study of Van Dyke Drive.

Mr. Inglima: stated that based on the cartway width that he has described in his testimony, would Van Dyke Drive comply with the RSIS.

Mr. Palus: stated that in order to determine what classification the street is, a vehicle traffic study would have to be done and that is not part of the study that they undertook.

Mr. Inglima: stated that each of the proposed lots that front on Van Dyke Drive, there is a proposed driveway; contemplating the creation of additional impervious surfaces.

Mr. Palus: stated there should be pavement between the street and garages.

Mr. Inglima: stated there are no paved driveways in that location today.

Mr. Palus: stated not directly accessing off Van Dyke; there are existing impervious surfaces on the applicant's property that drain towards Van Dyke; those items will be removed.

Mr. Inglima: asked if Mr. Palus was talking about existing structures that are shown on Exhibit O3; those are not at the roadway frontage.

Mr. Palus: stated this was correct.

Mr. Inglima: stated there is an area of undeveloped land that lies between the roadway and those structures.

Mr. Palus: stated generally yes.

Mr. Inglima: stated that in regards to the subdivision plan, paved areas are being proposed that connect directly to the cartway of Van Dyke Drive.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if Mr. Palus calculated the amount of additional impervious surface that will be constructed and will contribute runoff to Van Dyke Drive along the westerly frontage of the site.

Mr. Palus: stated, as he had already testified to, each of the proposed driveways on the homes that will front Van Dyke Drive will be equipped with trench drains to collect the runoff as it runs towards Van Dyke; those trench
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drains will be piped to seepage pits which will fully contain the 100 year storm volume and recharge it into the ground.

Mr. Inglima: stated he is speaking of the areas that are within the right of way of Van Dyke Drive; to the west of the proposed trench drain that he described.

Mr. Palus: stated it will be a very small portion of the driveway located between the trench drains and the existing pavement on Van Dyke drive; that is a result of not being able to put the trench drains out in the municipal right of way; the trench drains will be confined to the applicant's property in the event there is any future maintenance issues, or repairs, it will be the responsibility of the individual homeowners; standard design procedure.

Mr. Inglima: asked if it would be fair to say that the impervious surfaces that are to be constructed to provide vehicular access to each of the proposed lots; those paved surfaces will contribute runoff to Van Dyke Drive.

Mr. Palus: stated minimally but yes.

Mr. Inglima: asked if any calculations have been made of the amount of runoff that will be created.

Mr. Palus: stated there is a small area; not addressed.

Mr. Inglima: stated that runoff that accumulates on Van Dyke Drive moves along both sides of the roadway in a generally southerly direction.

Mr. Palus: stated it does move southward.

Mr. Inglima: asked if it would be fair to say that some of that runoff follows Van Dyke Drive down to Brandywine and then enters the area south of the applicant's site on Brandywine.

Mr. Palus: stated it moves down towards Brandywine and also towards Cleverdon.

Mr. Inglima: stated there will be runoff that comes from Van Dyke down Brandywine and goes into the inlets that are indicated on O3.

Mr. Palus: stated that was correct; this is the direction that the runoff on the side of the property goes to today.

Mr. Inglima: asked if Mr. Palus ever observed any runoff from the property leaving the existing site and going into Van Dyke Drive.

Mr. Palus: stated he has been out there during rain events; not specifically followed a drop of water from the property onto Van Dyke.

Mr. Inglima: asked if it was true that there is a large vegetative area that separates improvements on portions of Lot 10 and portions of Lots 1, 2, 3 & 4 from Van Dyke Drive.

Mr. Palus: stated there is an undeveloped area along the western edge of the property; there is an area between structures and Van Dyke that is not developed.

Mr. Inglima: asked if there was a depressed area of unimproved land that is within the right of way of Van Dyke that runs along the frontage of each of those four lots.

Mr. Palus: stated that based on the topography the water will run along the shoulder until it gets further south and then it will come back out onto Van Dyke.

Mr. Inglima: asked if there was a soft shoulder area along the existing paved cartway of Van Dyke Drive on the east side.

Mr. Palus: stated there is pavement and then there is the area where the pavement ends that is unimproved as you move eastward; standard on any road.

Mr. Inglima: stated that Mr. Palus had a lower area that is either within the right of way or within the first several feet of each of Lots 1, 2, 3 & 4, where water from Van Dyke Drive can run off the pavement and into the soft shoulder.

Mr. Palus: stated there is an area that does that and then as you move further south it comes back off of that soft shoulder and back onto Van Dyke.

Mr. Inglima: asked if Mr. Palus had ever observed any conditions where water is flowing through the soft shoulder in a generally southerly direction.

Mr. Palus: stated not a significant flow.

Mr. Inglima: asked if after these lots are developed, isn't it true that the lands that are developed along the east side of Van Dyke Drive are going to be at a generally higher elevation than the cartway.

Mr. Palus: stated slightly.

Mr. Inglima: asked if the effect of building a higher front yard for each of the new lots be that they will exclude water that currently is able to leave Van Dyke Drive and be stored from the soft shoulder.

Mr. Palus: stated the soft shoulder will not be completely changed; the only place it will be changed is where the driveways come in; not eliminating the entire soft shoulder along Van Dyke.

Mr. Inglima: asked if Mr. Palus was suggesting that when people purchase these homes that they will not bring the lawn all the way out to the edge of the pavement.

Mr. Palus: stated the lawn itself will act as a soft shoulder; looking at the drainage calculations provided, they specifically analyzed the west side of the project; showed from the existing conditions to the proposed conditions there is a decrease in runoff; result of removing some of the uphill impervious surfaces, as well as, taking each of the new four homes and their driveways and connecting them to proposed seepage pits.

Mr. Inglima: stated that part of his calculations are that there is an assumption that water does leave the site on its westerly side and goes into Van Dyke.

Mr. Palus: stated the topography clearly demonstrates that.

Mr. Inglima: asked if Mr. Palus observed that condition.

Mr. Palus: stated you don't have to stand there when it rains to know the water will run downhill.

Mr. Inglima: asked if there would be any gullies, swales or rivulets observed.

Mr. Palus: stated there is topography which is at 1 ft. intervals; relatively accurate; that is what is used to make their assessments; south end along Van Dyke is at an approximate elevation of 114 up to Hollywood which is 125; high point of property that is also 125; safe to say water will run from 125 to the SW corner at 114; that is where it enters Van Dyke Drive; reduction on peak runoff rates coming from the property to Van Dyke Drive.

Mr. Inglima: asked if Mr. Palus felt this assumption was compatible to the existing, undeveloped conditions of that portion of the site.

Mr. Palus: stated the existing conditions vs. the proposed conditions were analyzed.

Mr. Inglima: asked if Mr. Palus felt that there was no conflict between the observed conditions of the property where there is excessive vegetation, etc.; still feels water will leave that area and go into a paved surface to the west.

Mr. Palus: stated the calculations take into account the existing conditions in comparison to the proposed conditions.

Mr. Inglima: asked what the coefficient of runoff did Mr. Palus use for the westerly area of the site that will contribute runoff under current conditions to Van Dyke Drive.

Mr. Palus: stated the existing conditions on the west side of the road utilized a coefficient of .95 for impervious surfaces; .25 for wood/grass combo surfaces.

Mr. Inglima: asked what the area of the impervious surface that contributes runoff to Van Dyke is.

Mr. Palus: stated, existing there is 4,448 sq. ft.

Mr. Inglima: asked if all of the 4,448 sq. ft. are completely surrounded by wooded or grassy areas.

Mr. Palus: stated some of them are driveways; on the west side there is a garage that has asphalt pavement next to it; that garage is not surrounded by undeveloped areas.

Mr. Inglima: asked how close the impervious surface that Mr. Palus is describing is to Van Dyke Drive.

Mr. Palus: stated the closest would be 40 ft. to the right of way.

Mr. Inglima: asked if Mr. Palus felt that he was still entitled to take credit at a .95 coefficient of runoff for surfaces that are 40 ft. from the right of way and more than that from the paved surface of Van Dyke.

Mr. Palus: stated the way the drainage calculations work is that you break down different surfaces; take 4,448 sq. ft. of impervious surface weighted at a coefficient of .95; then take 54,417 sq. ft. of wooded area at a coefficient of .25 and then there is a weighted average for the composite area that gives you 0.30.

Mr. Inglima: stated the weighted average assumes that the .95 for the area defined as being impervious would not be reduced in some way by the intervening areas that should be calculated at a .25 coefficient run off.

Mr. Palus: stated the areas are separate; whatever surrounds the area is not counted in the runoff coefficient.

Mr. Inglima: stated that from a practical standpoint, if there is water that is hitting a roof that is more than 40 ft. away from the street, that water would have to cross an area that has a coefficient of runoff of only .25; asked if it would all get absorbed.

Mr. Palus: stated "No."

Mr. Inglima: asked if Mr. Palus felt he should still use the .95 even though they are that far away from the street.

Mr. Palus: stated the distance to the street has no impact on the assessment of the .95 coefficient.

Mr. Inglima: stated that along the south side of the site there are a number of residential properties that front on Brandywine; asked Mr. Palus to show on the plans where he indicated the topographic contours for those properties.

Mr. Palus: stated the topography does not extend onto the private, previously constructed area along Brandywine.

Mr. Inglima: asked why not.

Mr. Palus: stated it is private property; generally topography is limited to the areas where they are working.

Mr. Inglima: asked if any other source was consulted for topographic information.

Mr. Palus: stated the DEP website does not have topography; the USGS maps are usually in 20 foot contours; this is a relatively flat area; those maps would not be useful in this area.

Mr. Inglima: asked if Mr. Palus developed any contours for those properties at the property boundaries on the east or south side of those properties.

Mr. Palus: stated there is from the drainage structures; elevations of the inlets.

Mr. Inglima: stated that Mr. Palus did not know how much water is coming into the site along the south boundary from the properties that front on Brandywine.

Mr. Palus: stated he was able to do a visual site inspection that identifies some of the properties whose rear yards are pitched towards Brandywine and there are a couple that are pitched towards the applicant's property; specifically lots 8 and 9.

Mr. Inglima: stated Mr. Palus could stand on the common boundary of the applicant's property of those lots and shoot the elevations.

Mr. Palus: stated you would need to physically go on the property; there would have to be a receiver.

Mr. Inglima: stated that lots 8 and 9 are the only lots that are higher than the applicant's site.

Mr. Palus: stated those are the ones that were identified that have backyards draining towards their property.

Mr. Inglima: asked how much of the backyards will drain.

Mr. Palus: stated it is approximately from the rear of the houses back; no calculations.

Mr. Inglima: asked if a calculation was done of the cubic feet of water that would be passed within those areas.

Mr. Palus: stated they are generally lawn areas; relatively small amount of runoff; did accommodate them with the provisions for the stone trench along their southerly property.

Mr. Inglima: stated, when you get to the SE corner of the site, lot 9, asked if the far SE corner of the property, under current conditions, higher or lower than lot 9 in that location.

Mr. Palus: stated that area is currently lower; lots 8 and 9 have built retaining walls which basically act as dams to stop the water from coming off of their property.

Mr. Inglima: asked where the retaining walls were shown on the plans.

Mr. Palus: stated they are not on the plan; they were done by visual site inspection.

Mr. Inglima: stated there is a 6 ft. stockade fence indicated.

Mr. Palus: stated if the survey says so, then yes.

Mr. Inglima: asked if trees were indicated on the neighbor's property.

Mr. Palus: stated there is an 18 inch and a 21 inch tree near the common property line with lot 9; Exhibit O3; more extensive tree survey done subsequent to the original survey.

Mr. Inglima: asked if it was fair to infer from the absence of any other trees designated along the common boundary on lots 6, 7, 8 or 9 that there are no other trees within the same setback from the property line.

Mr. Palus: stated it is not fair to infer that.

Mr. Inglima: asked if there could be other trees on other lots that are close to the common boundary.

Mr. Palus: stated it is a possibility.

Mr. Inglima: asked if the trees on lot 9 were shown.

Mr. Palus: stated he did not do the survey.

Mr. Inglima: stated the plan indicates an 18 inch star shaped tree to the left and a 21 inch tree star shaped tree to the right; what do those depict.

Mr. Palus: stated those generally depict the diameter of the tree.

Mr. Inglima: asked if that is a caliper.

Mr. Palus: stated it is diameter; approximately 3 ft. above grade.

Mr. Inglima: stated it is a fairly substantial tree; 50 ft. in height.

Mr. Palus: stated he did not measure the height; did not do a specific inspection of those trees; has been on the property.

Mr. Inglima: stated Mr. Palus is proposing a stone trench right on the property line in the SE corner of the site.

Mr. Palus: stated that was correct.

Mr. Inglima: asked what the purpose of the stone trench is.

Mr. Palus: stated it will collect any water which might run off from the adjacent properties towards the applicant's property and does not reach their detention system.

Mr. Inglima: asked if that was the only purpose of the trench.

Mr. Palus: stated "Yes."

Mr. Inglima: stated that on one of the detail drawings a 5 ft. wide, 3 ft. deep stone trench is shown; located right up against the property line.

Mr. Palus: stated it is at the edge of their property.

Mr. Inglima: asked if there is any space; it is shown on the plan as touching.

Mr. Palus: stated it is on the applicant's property.

Mr. Inglima: asked, when it is constructed, how that would be done.

Mr. Palus: stated that generally the area is excavated and the soil removed.

Mr. Inglima: asked if the construction vehicle would be on the neighbor's property.

Mr. Palus: stated "No"; can be designed without being on the neighbor's property.

Mr. Inglima: asked if the excavator would excavate from existing grade down three feet or from a finished grade; no contours shown.

Mr. Palus: stated "existing"; the trench will follow the existing grade; there will not be any changes in grade along that area; soil removed, stone placed; same elevation as it is today.

Mr. Inglima: stated no contours are indicated at this location and no contours are indicated for the property to the south; asked if the stone trench will be higher or lower than the surface of lots 8 and 9.

Mr. Palus: stated it will be lower based on visual inspection.

Mr. Inglima: asked if Mr. Palus was satisfied with this information based on a site inspection alone.

Mr. Palus: stated “Yes”; there are small retaining walls along the backs of lots 8 and 9 which they used to elevate their property; clearly the applicant’s property is lower; neighbor’s property is at the top of the retaining wall.

Mr. Inglima: asked if Mr. Palus was indicating that the stone trench would start at an elevation of 105 existing and proposed.

Mr. Palus: stated that is where the existing elevation is.

Mr. Inglima: stated the bottom of the trench would be at 102.

Mr. Palus: stated in that area, yes.

Mr. Inglima: asked, if you go all the way to the east, what is the elevation of the easterly end of the stone trench at its surface?

Mr. Palus: stated approximately 105.

Mr. Inglima: asked what the lowest point of the surface would be between those two points.

Mr. Palus: stated approximately 102; near the common lot line between lots 8 and 9.

Mr. Inglima: asked, if at that point, the bottom of the trench is at 99.

Mr. Palus: stated “Yes.”

Mr. Inglima: asked if any tests were done of the elevation of ground water in that location.

Mr. Palus: stated they relied on the Bergen County Soil’s reports for the soil conditions; based on all available documentation, the soil in this area is very sandy; not a high water table; during a recent rain event they were able to observe no run off from their site to this low area; that area will be able to take the water sufficiently; every reason to believe that the stone trench will function as designed.

Mr. Inglima: asked if Mr. Palus had done any inspection of the distance from the surface of the land in that location and subsurface conditions of either water or any other types of materials that may interfere with the placement of the stone trench.

Mr. Palus: stated there have not been subsurface soil inspections done in the area of the proposed trench.

Mr. Inglima: asked if Mr. Palus had reviewed the proximity of the existing trees that are shown on lot 9 on Exhibit O3 to the stone trench.

Mr. Palus: stated he did not have a direct measurement.

Mr. Inglima: asked if Mr. Palus had any idea where the root systems of those trees were in relation to the common boundary.

Mr. Palus: stated “No.”

Mr. Inglima: asked if digging would be done down to elevations between 99-102 along the rear of lot 9 and without knowing the root systems.

Mr. Palus: stated a study had not been done of the existing root systems of the trees.

Mr. Inglima: stated if there are root systems for those mature trees, the trench could not be installed.

Mr. Palus: stated he is not an arborist; could not say where the roots are; could not say what percentage of the roots would be impacted; just because you dig near a tree does not mean it will automatically be killed.

Mr. Inglima: asked where the water that will be collected in the stone trench would go.

Mr. Palus: stated it would go into the ground.

Mr. Inglima: asked if Mr. Palus was stating the water would flow directly into the ground no matter where it enters the trench.

Mr. Palus: stated it depends on the permeability of the soil.

Mr. Inglima: stated that there is a possibility that after the construction, there will be a possibly slightly firmer base than there is today.

Mr. Palus: stated the weight of the stone is very equivalent to the weight of the soil; no additional weight placed there; if you look at the nature of the trench, it has a higher point of elevation at 105 and a lower elevation at 102; that is also the way the natural ground exists today; if you get runoff in this area, that is the natural low spot and that is where the majority of the water will be collected and recharged into the ground; same science with a stone trench.

Mr. Inglima: stated that if it were assumed the water moves to the common boundary of lots 8 and 9; asked if that would then concentrate the area into which it can possibly pass into the surrounding soil.

Mr. Palus: stated that is the existing water and that is where it would be going today; trench will be no different than the ground today.

Mr. Inglima: stated that Mr. Palus was suggesting that this was the existing low point of the entire site.

Mr. Palus: stated that was correct.

Please Note: a 10 minute break is taken at this time of the meeting 9:25PM.

Meeting reconvened at 9:35PM

Roll Call Taken:

In Attendance: Messrs. Berardo, Reade, Cirulli, Newman, Iannelli, Councilman Rorty, Chairman Hanlon, Mayor Randall

Mr. Inglima: stated if you were to go to the far east end of the stone trench, there is an existing retaining wall indicated on sheet 5; it runs more or less along the SW side of WSRR.

Mr. Palus: stated there is an existing retaining wall in the municipal right of way.

Mr. Inglima: asked if this was installed by property owners.

Mr. Palus: stated it is in the municipal right of way; does not know its history.

Mr. Inlgima: asked what Mr. Palus was proposing to do with that wall as part of this application.

Mr. Palus: stated the wall will be removed; at least a portion in front of their property; not the entire wall; just the area directly adjacent to the proposed detention system.

Mr. Inglima: asked what portion of the retaining wall would remain.

Mr. Palus: stated the portion to the south; this portion is not near any of their proposed improvement; it is in the municipal right of way; it would be up to the municipality to tell him what to do with that wall.

Mr. Inglima: asked what would be the surface of the stone trench next to the retaining wall.

Mr. Palus: stated of the existing graded elevation 105; will be at approximately 102.

Mr. Inglima: asked where the top of the stone trench would be.

Mr. Palus: stated it would be at 105 which is the existing grade there.

Mr. Inglima: stated it would be more or less at the base of the wall.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if there is anything that would need to be done to the wall in order to sustain it after a stone trench is put in.

Mr. Palus: stated “No.”

Mr. Inglima: referred to the stone wall that is located along the north side of the stone trench; proposed stone wall.

Mr. Palus: stated that was correct.

Mr. Inglima: stated a stone wall is indicated that has a top of wall of 105.

Mr. Palus: stated yes, through the majority of the wall.

Mr. Inglima: asked if this was going to be constructed directly next to the stone trench.

Mr. Palus: stated to the north of the stone trench.

Mr. Inglima: asked if there would be any other structure that would be necessary in order to reinforce the wall in that location.

Mr. Palus: stated, no, not at that height.

Mr. Inglima: stated the three foot high wall would be able to be placed right on top of the stone trench.

Mr. Palus: stated it would be next to it.

Mr. Inglima: asked how far down would the wall have to go below the surface of the stone trench.

Mr. Palus: stated it is a boulder wall of no more than 3 ft. in height; at the absolute highest point; walls of that nature do not typically require structural calculations; general contractors approach, 12-18 inches.

Mr. Inglima: asked what the wall would be constructed from.

Mr. Palus: stated the intent is to use natural stone.

Mr. Inglima: asked Mr. Palus if he had a sample of the stone.

Mr. Palus: stated it is natural stone.

Mr. Inglima: asked if Mr. Palus was speaking of rocks that would be found on the site.

Mr. Palus: stated potentially, yes.

Mr. Inglima: asked what type of rocks they would be.

Mr. Palus: stated most likely granite boulders would be the standard use.

Mr. Inglima: asked how big the boulders would be.

Mr. Palus: stated some of them could be upwards of 3 ft. in thickness, but generally for a 3 ft. wall they would probably be about 1.5 ft.

Mr. Inglima: asked if he considered the use of any more aesthetically pleasing materials.

Mr. Palus: stated natural stone walls are aesthetically pleasing.

Mr. Inglima: stated there is a space between that and the next retaining wall; asked what the distance is between the two walls.

Mr. Palus: stated the distance is 4 ft. of clear space.

Mr. Inglima: asked if there would be another 3 ft. in boulder wall constructed in that location to retain the additional flow to the north.

Mr. Palus: stated that was correct.

Mr. Inglima: asked when Mr. Palus gets finished putting all the walls and fill in place, how much he would be raising the surface of the existing site where the 111 ft. elevation is indicated.

Mr. Palus: stated at 111, which is north of the wall, it will be approximately 9 ft. higher than it is today.

Mr. Inglima: asked if the area at 111 would be an area of grass or other ground cover.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if that would be 9 ft. higher than existing.

Mr. Palus: stated that was correct; there is no 101 contour so it is similar between 101 and 102; very flat.

Mr. Inglima: asked why it had to be that high there.

Mr. Palus: stated it is being done to completely enclose the proposed detention structure so it is not visible.

Mr. Inglima: asked if the only reason for the embankment and the retaining walls is that fact that he is placing the proposed detention structure in the SE corner of the site.

Mr. Palus: stated that is one of the reasons; the individual development of Lot 5 would most likely include fill in that area; create more of a flatter yard area.

Mr. Inglima: stated the area that he is required to fill in order to create a developable footprint area for a house, as what is indicated as proposed lot 5 in the SE corner of the site, wouldn't need that much soil if he was just creating an area to be developed but for the fact he is proposing the detention system.

Mr. Palus: stated there would be an option to; it is not that you couldn't do it without the detention system; it serves two purposes in this case.

Mr. Inglima: stated the retaining wall will have a tendency to direct water flow into an area closer to the common boundaries of the neighbors to the south.

Mr. Palus: stated "No."

Mr. Inglima: stated if you look at the existing contours of the site, water passes down into the SE corner farther away from the common boundaries than what Mr. Palus is proposing.

Mr. Palus: stated no, the low point existing is very close to the common boundary line between lots 8 and 9.

Mr. Inglima: stated that Mr. Palus said the properties along the center of the south boundary, lots 7 and 8, were generally higher than the applicant's site.

Mr. Palus: stated they had been regraded to pitch water towards the applicant's property.

Mr. Inglima: asked if this is an existing condition.

Mr. Palus: stated it exists today, yes.

Mr. Inglima: stated that right now the water that comes off the back of those properties and any water that collects on the site and might be able to flow over land, is not going to be up against the common boundary, it is going to be 20 ft. away.

Mr. Palus: stated, no, the lowest point is up against the retaining walls which are up against lots 8 and 9.

Mr. Inglima: asked if Mr. Palus had done a study to conclude this.

Mr. Palus: stated they have a topographic survey and multiple site inspections.

Mr. Inglima: asked if Mr. Palus had any photographs that show the conditions of the abutting properties.

Mr. Palus: stated there are pictures of the retaining wall; does not know if they were made as part of an exhibit.

Mr. Inglima: asked who would submit them as a witness.

Mr. Palus: stated when that witness is called.

Mr. Inglima: asked if he intended to submit them as evidence.

Mr. Whitaker: stated he is not intending to submit them; he is done with direct; not a requirement under the subdivision code.

Mr. Palus: stated an existing driveway enters the site in the NW corner of existing Lot 10; asked what that driveway is constructed from.

Mr. Palus: stated probably primarily asphalt; it is in poor condition; combination of asphalt and gravel; residential driveway that has been in place for a substantial period of time.

Mr. Inglima: stated it connects to Hollywood Avenue; asked where the nearest upstream catch basin on Hollywood Avenue along the south side of the roadway was located.

Mr. Palus: stated he believes it is west of Van Dyke.

Mr. Inglima: stated there is water that currently collects on Hollywood Avenue and runs along the south curb along the frontage of the site.

Mr. Palus: stated water does run down Hollywood Avenue.

Mr. Inglima: stated when it runs past the frontage of the site, it more or less travels in an easterly direction towards the intersection with WSRR.

Mr. Palus: stated this was correct.

Mr. Inglima: stated when it reaches this driveway to the site, asked if some of that water enters the site.

Mr. Palus: stated "No", because the driveway is higher.

Mr. Inglima: asked if Mr. Palus shows a contour higher than the street.

Mr. Palus: stated "Yes."

Mr. Inglima: asked if Mr. Palus had observed the conditions of run off as it is today along the street where Hollywood Avenue and the driveway intersect.

Mr. Palus: stated he had not specifically watched a rain event; has been to the site; working off of the topographical maps which were provided which include

contours and elevations of the applicant's site as well as the existing gutter line of Hollywood Avenue.

Mr. Inglima: asked if it was true that the site is generally sloping downhill from the NW corner to the SE corner.

Mr. Palus: stated generally yes but there is a high point on that driveway where it comes off Hollywood Avenue.

Mr. Inglima: asked if Mr. Palus was stating that no water enters the site from Hollywood Avenue.

Mr. Palus: stated there is a very minimal amount; the contour of elevation 125 on proposed Lot 9 is higher than the existing bottom of the curb identified at the highest point of the depressed curb on Hollywood Avenue which is 124.16; the water very clearly slopes from their driveway down towards Hollywood Avenue at that location.

Mr. Inglima: asked if Mr. Palus had included in any of his calculations of the existing conditions water that enters the site from Hollywood Avenue.

Mr. Palus: stated he had not.

Mr. Inglima: stated after the improvements are done, there will be a continuous curb line along Hollywood Avenue where it will abut the rear lines of the proposed lots on the cul-de-sac.

Mr. Palus: stated he is still working with the Bergen County Planning Board to determine what the improvements along Hollywood Avenue would be.

Mr. Inglima: stated Mr. Palus' plan shows that the curb will be installed where the existing driveway is located.

Mr. Palus: stated the existing driveway opening will be closed off with a curb.

Mr. Inglima: stated the water that is currently accumulating and passing along Hollywood Avenue will no longer be able to enter the site after the site is constructed.

Mr. Palus: stated it doesn't enter the site it runs along the gutter of Hollywood Avenue; the gutter of Hollywood Avenue is lower than the driveway elevation directly next to Hollywood Avenue.

Mr. Inglima: asked if Mr. Palus had performed any calculations of the amount of water that currently flows along Hollywood Avenue during a storm.

Mr. Palus: stated the water that flows along Hollywood Avenue enters the storm drainage system at the intersection of Hollywood Avenue and WSRR; that drainage system continues east down Hollywood Avenue and in no way contributes to the development of this site; two different drainage systems.

Mr. Inglima: stated Mr. Palus mentioned that he was working with the County; when was the last time Mr. Palus had a conversation with anyone from the County.

Mr. Palus: stated he could not give a direct date.

Mr. Inglima: asked if it had been since the issuance of the February 19th report from Mr. Timsak to Mr. Frasco.

Mr. Palus: stated he could not give the last specific date that he had spoken to Mr. Timsak regarding this application; Mr. Timsak is obviously a very common representative of Bergen County; has had multiple conversations with him over the past several months; could not say which date he discussed what project with him.

Mr. Inglima: asked if Mr. Palus provided any materials to him in response to his letter dated February 19, 2014.

Mr. Palus: stated he has not submitted revised plans to Bergen County at this time.

Mr. Inglima: asked if the plan had been revised or had there been any calculations of the location of the center line of Hollywood Avenue along the frontage of the applicant's site.

Mr. Palus: stated, "No."

Mr. Inglima: asked if Mr. Palus had calculated the existing right of way width of Hollywood Avenue along the frontage of the applicant's site.

Mr. Palus: stated the survey indicated it is a variable width.

Mr. Inglima: asked if any information was provided as to what the word variable means in terms of feet.

Mr. Palus: stated he is not the surveyor, so no.

Mr. Inglima: stated there is an indication that concrete monuments have to be set along the County roadway easement line; asked if Mr. Palus had indicated the County roadway easement line.

Mr. Palus: asked which easement.

Mr. Inglima: read from Mr. Timsak's report; paragraph #5.

Mr. Palus: stated that at the last meeting there was a conversation between the Chairman and the Borough Engineer that the Borough does not want a granting of an easement on this property; they will make that argument to the County.

Mr. Inglima: stated in regards to monumentation in the field, asked if Mr. Palus had indicated on his plans any monuments that were located either along Hollywood Avenue or WSRR that were found by Mr. Palus or by the surveyor in the course of preparing the plans.

Mr. Palus: stated he did not find any monuments; that is more of a surveying question.

Mr. Inglima: asked if Mr. Palus was showing any monuments on his plan.

Mr. Palus: stated he would have to go back to the initial survey; it is a surveying item, not an engineering item.

Mr. Inglima: asked if Mr. Palus would be preparing the final subdivision plat if this preliminary plat is approved.

Mr. Palus: stated, "No", the surveyor prepares it; an engineer cannot prepare a subdivision plat.

Mr. Inglima: asked why a final plat was not submitted with the preliminary plat.

Mr. Palus: stated probably because it hasn't been approved.

Mr. Inglima: asked if it was common to seek both preliminary and subdivision approval on residential lot subdivisions in the State of NJ.

Mr. Palus: stated that in his experience it is standard to prepare the final plat after initial approval of the application; during the application items are subject to modification; premature to prepare a final plat at this point.

Mr. Inglima: asked if it would be premature to locate the monuments that are set in place along a County road at the time a preliminary subdivision plat is prepared.

Mr. Palus: stated the identification or location of any property corners, including monuments, is done by a surveyor; he is not a licensed surveyor.

Mr. Inglima: asked if Mr. Palus found that the monuments that were set by previous applicants, developers, etc. in connection with the improvement of Hollywood Avenue did not match the property boundaries that he is indicating on his plan, what would happen then?

Mr. Palus: stated the discrepancy would have to be resolved; it would be resolved by surveyors not by engineers.

Mr. Inglima: asked if that should be done after the Board had conducted multiple hearings to reveal a subdivision plan that may need to be changed.

Mr. Palus: stated Mr. Inglima is asking surveying questions and Mr. Palus is not a surveyor.

Mr. Inglima: stated he is asking Mr. Palus because he prepared the preliminary subdivision plan; trying to find out the source of the information that Mr. Palus is showing on the plan.

Mr. Inglima: stated in respect to WSRR, should any questions in respect to this street be directed to the surveyor.

Mr. Palus: stated if it is a survey question, then yes.

Mr. Inglima: asked if it is fair to say that the information shown on the preliminary subdivision plan with respect to the location of WSRR was all obtained by other person's work.

Mr. Palus: stated by other professionals, particularly surveyors.

Mr. Inglima: stated that Mr. Palus testified regarding the way he designed the detention system that is shown in the SE corner of the site; indicated that calculations were performed that were submitted to the municipality and its engineer; submitted two reports; asked if they were produced using the same type of methodology.

Mr. Palus: stated there are different methodologies; he used the Modified Rational Method in all three reports; HydroCAD software was utilized; described software and version used; industry standard; all data is inputted by calculations that he made; criteria is chosen.

Mr. Inglima: asked if Mr. Palus inputs data or assumptions or criteria of his own in regards to the location or elevation of the proposed detention structure.

Mr. Palus: stated he picks the top and bottom of the pipes; can change and choose different sizes or different elevations; whole part of the design process.

Mr. Inglima: asked if Mr. Palus figures out how the water will enter the system, exit the system and the program will say how big the system has to be.

Mr. Palus: stated not directly; certain standards have to be met; RSIS; trial and error process with the program.

Mr. Inglima: selected page 15 of Mr. Palus' March 18, 2014 report; **Exhibit O5: Page 15 of MAP Engineering report stating the following: Prepared HydroCAD Sampler; printed on 3/18/14;** asked what the wording on the page referred to.

Mr. Palus: stated it indicates that this report was prepared using a free HydroCAD sampler; explained HydroCAD needs to be purchased; did purchase the software; legally downloaded onto his computer; using it for sometime; shortly before this application was prepared in his office, all of his computers
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were upgraded; when this was done they had not been able to get the license from HydroCAD; when originally purchased, this software is downloaded directly off the internet so there is no CD and he did not have immediate access to the license number; when reinstalled on the new computer, he hadn't put the license number in it; for the record, absolutely testify that this program has been fully paid for.

Mr. Inglima: read a statement from HydroCAD stating that the sample version is for educational use only; for actual design and modeling applications the full version must be used; all of Mr. Palus' reports used the HydroCAD sample version.

Mr. Palus: stated that when you download the sample version this is a full version and is 100% of everything you will get on the "for sale" version; the only difference is after 2 hours it times you out; the calculations would be no different if the license number was entered before running it; from a functioning and calculation standpoint, there is no difference.

Mr. Inglima: asked if Mr. Palus could rerun the reports using the paid version of HydroCAD.

Mr. Palus: stated he would do that but it would be the exact same information.

Mr. Inglima: asked what the Modified Rational Method was and how does it differ from the Rational Method.

Mr. Palus: explained the difference and the calculations.

Mr. Inglima: asked if Mr. Palus was satisfied that the modified rational method is the type of method that produces the most accurate results when analyzing detention structures.

Mr. Palus: stated he is satisfied that the RSIS permit the modified rational method to be used for drainage areas up to 320 acres; their site is a little over 3 acres; well within the confines of the allowable use of the modified rational method.

Mr. Inglima: asked about the accuracy in relation to the municipal stormwater management ordinance.

Mr. Palus: stated the RSIS supersedes the municipal ordinance.

Mr. Inglima: asked if there are any other municipal ordinances that dictate how Mr. Palus would calculate how you design or maintain a detention structure of the nature that is proposed.

Mr. Palus: stated the RSIS supersede municipal ordinances in regards to drainage.

Mr. Inglima: asked if the municipality ordinances that discuss how detention structures are designed or maintained must yield to the RSIS.

Mr. Palus: stated that was correct.

Mr. Inglima: asked what provisions of the RSIS talk about who maintains a detention structure.

Mr. Palus: stated the maintenance is obviously subject to municipal involvement.

Mr. Inglima: asked if the design includes where it is located.

Mr. Palus: stated that would be part of the design.

Mr. Inglima: stated Mr. Palus is proposing a detention system that consists of four solid wall pipes that are placed more or less at grade.

Mr. Palus: stated they are buried.

Mr. Inglima: stated they will be buried after they are constructed and the rest of the site is filled; asked what the elevation of the bottom of the pipe at the south end of the detention system would be.

Mr. Palus: stated it is at 105.

Mr. Inglima: asked what the elevation of the ground at that location is.

Mr. Palus: stated it varies from approximately 102 up to 107.

Mr. Inglima: stated the bottom of the proposed pipes is going to be 3 ft. higher than the existing elevation of that part of the site.

Mr. Palus: stated at the lowest point.

Mr. Inglima: stated it would not be buried; it would be out of the ground by 3 ft.

Mr. Palus: stated they are proposing to fill around the structures; they will be completely covered by soil.

Mr. Inglima: asked if it would be fair to say that pipes would be constructed and head chambers at either end of the pipes that will be at the south end higher by 3 ft. than the existing topography and at the north end they will be buried about 3 ft.

Mr. Palus: stated that is the existing grade; they are not going to construct them without doing a grading at the same time.

Mr. Inglima: asked why they are installing them in a way that intrudes upon the right of way of WSRR.

Mr. Palus: stated it facilitates maintenance of the Borough going forward; provides the outlet structure near the right of way, as well as, the water quality feature; makes it easier for the DPW to access the site.

Mr. Inglima: asked why it can't be installed completely on the applicant's site; have the outlet structure on the east side of the end chamber right next to the right of way line.

Mr. Palus: stated the structure was originally on the applicant's site; the Borough official asked that it be moved to facilitate maintenance; Borough asked for it to be moved closer to the right of way.

Mr. Inglima: stated there is a substantial depression in this area of the site; 5 ft. deep pond; no water; explored the idea of putting a detention pond in or some other surface to collect run off.

Mr. Palus: stated there are two different questions; asked if Mr. Inglima was asking about an above ground detention basin or about subsurface recharge.

Mr. Inglima: asked if Mr. Palus was to design a surface feature to allow water from the street system to flow into it and be controlled in its outflow to the public system, wouldn't that allow runoff to recharge ground water in the SE corner.

Mr. Palus: stated this was looked into; did not choose this option because of the proximity of the neighbors to the south; might be someone who objected; more cost effective solution but what he is electing to do is to provide a fully contained system that will then discharge to a municipal storm system.

Mr. Inglima: asked if this decision had been reconsidered.

Mr. Palus: stated he would be surprised if the applicant directly to the south was in favor of either a large pond directly next to the property; there has already been an objection to a stone trench; it could be done from an engineering standpoint; from a potential impact on a neighbor, it was thought this was the more appropriate choice.

Mr. Inglima: stated Mr. Palus indicated that he would have a substantial amount of fill associated with creating an embankment around these pipes; asked if that fill would extend into the right of way into WSRR.

Mr. Palus: stated there will be a portion of fill placed in WSRR.

Mr. Inglima: asked if there was going to be a very steep slope along the WSRR right of way.

Mr. Palus: stated, "No."

Mr. Inglima: asked if there was going to be a drop from a top elevation of 111 to a bottom elevation of 107 where it currently exists in the existing right of way within a distance of about 30 ft.; asked if this was steep.

Mr. Palus: stated yes and he would not categorize it as steep.

Mr. Inglima: stated there would be a drop of 4 ft.; if someone is standing on the cartway of WSRR they are going to be looking at a 4 ft. high earthen wall.

Mr. Palus: stated they would be looking at a 4 ft. slope over 15 ft.; it is not a wall.

Mr. Inglima: stated there is 15 ft. from the 111 to the 107.

Mr. Palus: stated that is not very steep.

Mr. Inglima: stated if he was standing on WSRR and looking at the applicant's site, would he see an embankment.

Mr. Palus: stated you would see a grass slope.

Mr. Inglima: asked if there would be landscaping on the embankment.

Mr. Palus: stated not directly on top of the structure.

Mr. Inglima: asked if there are any easements along that portion of the roadway that prevents him from installing those structures.

Mr. Palus: stated it is a municipal right of way.

Mr. Inglima: asked if there are any easements along that side of the road that prevents him from installing those structures.

Mr. Palus: stated there wouldn't typically be an easement in the right of way.

Mr. Inglima: asked if he researched the issue.

Mr. Palus: stated the concept of easements in the right of way would be a surveying issue.

Mr. Inglima: asked if Mr. Palus knew of any easements along the west side of WSRR that would preclude him from putting in a structure of this size at 4 feet above grade.

Mr. Palus: stated he did not know.

Mr. Inglima: stated the applicant is proposing an improvement along the west side of WSRR; proposing to have a widened area of WSRR; the widening that is

proposed will taper down, as it moves to the south, to join in with the existing cartway width of WSRR.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if the widening of the road is deemed in the future to be insufficient, will the road be able to be widened any further with the embankment constructed within the right of way?

Mr. Palus: stated the road is being widened to 15 ft. from the center line on the applicant's side; if widened to the same width on the other side, that gives a 30 ft. wide cartway width; no municipal streets have a required cartway width in excess of that; there is no need for the Borough to widen it bigger than 30 ft.; if they chose to, they could grade into where the structure is shown; they would have to replace the earthen slope with some form of a retaining wall; that is hypothetical; widening the road at the request of the Borough Engineer.

Mr. Inglima: asked where the center line is shown on the plan.

Mr. Palus: stated it is the dashed line through the center of the roadway; above existing water main; dimension 15 ft. off of that; probably about half way up the detention structure.

Mr. Inglima: asked if the proposed inlet which is to be constructed by the SE corner of the site, will collect water from the west side of WSRR.

Mr. Palus: stated that was correct.

Mr. Inglima: stated that inlet is located on the plan in a specific location in relationship to the center line; asked what the distance is from the center line to the inlet; to the top of the inlet where the curb would be located normally.

Mr. Palus: stated to the back of the inlet it is approximately 15 ft.; the curb would be somewhere about 2 ft. closer to the center line.

Mr. Inglima: stated there was no curb to be installed in that location.

Mr. Palus: stated at this time there is no curb proposed.

Mr. Inglima: asked what the back of the inlet surface looked like.

Mr. Palus: stated it would have a curbed piece on it; detail is shown.

Mr. Inglima: asked what the distance would be from the inner aspect of the detail to the center line of the road.

Mr. Palus: stated it would be approximately 13 ft.

Mr. Inglima: asked if there would be enough roadway within that distance from the center line to the curbed edge of the inlet for future use on WSRR.

Mr. Palus: stated that when the road is widened, you have to taper back; some form of a taper is provided; the inlet is located partially in that area to be tapered; it is closer than 15 ft. to the center line of the road; if the entire length of WSRR was to be widened past the applicant's property to a total of 15 ft. from the center line, it would have to be reconstructed.

Mr. Inglima: asked why the full widening isn't being done at this time; why is it being tapered.

Mr. Palus: stated the Borough already owns the right of way; they can operate within the right of way; when a road widening is done, it is not sound engineering practice to have a hard stop at the edge of the property line; dangerous to cars; need to have a transition; standard practice.

Mr. Inglima: stated the taper started about 150 ft. from the SE corner.

Mr. Palus: stated it starts tapering at basically 80 ft. away; need a gradual taper; the design of the taper did not influence any of the other improvements.

Mr. Inglima: stated that Mr. Palus testified previously that he considered the visibility characteristics of WSRR to be suitable for this new roadway.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if Mr. Palus included in his determination of sight visibility the embankment that will be created along the west side of WSRR.

Mr. Palus: stated the embankment is off of the road existing; he did not take into account the fact the road will be widened so there will be an increase of what was calculated based on the conditions today; embankment will not have an impact.

Mr. Inglima: stated Mr. Palus was going to have a difference in the existing grade of at least 3 ft. located within the right of way of WSRR and asked if Mr. Palus felt this would impair the visibility of people looking to the south to determine if vehicles are approaching.

Mr. Palus: stated as you look to the south the horizontal geometry of WSRR bends away from where the applicant's site is so you don't look down the right of way you are actually looking down the pavement; not proposing a 3 ft. berm on the pavement itself; there will not be an impact on the available sight distance to the south.

Mr. Inglima: asked if Mr. Palus considered in his analysis the location of the Brandywine intersection and vehicles entering WSRR from that location.

Mr. Palus: stated you can see the Brandywine intersection.

Mr. Inglima: asked if Brandywine was at a lower elevation than WSRR.

Mr. Palus: stated it is.

Mr. Inglima: asked if Mr. Palus felt that vehicles would be visible for an acceptable distance to vehicles that are exiting the cul-de-sac.

Mr. Palus: stated available sight distances to the south are in excess of 400 ft.; WSRR has a design speed of 25 MPH; the ASTRID standards indicate you need an available sight distance of 280 ft.; he feels there is adequate sight distance.

Mr. Inglima: asked how far onto WSRR would a vehicle have to extend in order to have the visibility that Mr. Palus described.

Mr. Palus: stated 15 ft. back from the edge of the pavement.

Mr. Inglima: asked if Mr. Palus based this on the proposed stop line to be installed at the intersection.

Mr. Palus: stated no; the standard is to measure it from the edge of the pavement.

Mr. Inglima: asked if Mr. Palus had with him a copy of the Boswell survey that was contained on the disc that he provided to Mr. Inglima.

Mr. Palus: stated he did not have a paper copy with him.

Mr. Inglima: asked if Mr. Palus used the Boswell survey as a direct source of information for any of the designs, existing conditions, etc. that are shown on the subdivision plan that Mr. Palus prepared.

Mr. Palus: stated, "Yes."

Mr. Inglima: asked what Mr. Palus used from the Boswell survey.

Mr. Palus: stated there was a lot of information on the Boswell survey; topography; out bound property; existing improvements in WSRR, Hollywood Avenue, Van Dyke; all part of the Boswell survey.

Mr. Inglima: asked if Mr. Palus had done any work to verify the conditions that were shown on the Boswell survey.

Mr. Palus: stated he is not a licensed surveyor so he is not in a position to review them or make any determinations if they were accurate; he did have an independent surveyor go out and verify the Boswell information; basically he worked off of survey information from two different professional surveyors.

Mr. Inglima: asked if Mr. Palus discussed with DAB or their representatives any information on the Boswell survey.

Mr. Palus: stated he asked them to confirm particularly the outbound of the property with the Boswell survey; during his site inspection he did not notice any glaring discrepancies; not concerned about any particular items; additional survey work needed; DAB did the work.

Mr. Inglima: asked if he had any correspondence with DAB.

Mr. Palus: stated the correspondence was almost entirely verbal; office is in the same building; face to face discussions.

Mr. Inglima: asked if DAB had made any changes to their survey based on those conversations.

Mr. Palus: stated he asked them to check the outbound of the property.

Mr. Inglima: asked if they made changes to the plan in relation to that.

Mr. Palus: stated he suggested Mr. Inglima ask DAB directly.

Mr. Inglima: asked if DAB would be testifying at these hearings.

Mr. Whitaker: stated Mr. Smith of DAB would be testifying; this information was provided to the Board at the last meeting.

All Board Members present agreed with this statement.

Mr. Inglima: referred to sheet 5; the grate that is indicated in a low spot of proposed elevation 109 to the south of the proposed 2 story framed dwelling on proposed lot 5; asked if that was a lawn break.

Mr. Palus: stated it is an E inlet; double A inlet.

Mr. Inglima: asked if this is a box that has a grate that is left with the surface of the land.

Mr. Palus: stated this was correct.

Mr. Inglima: asked if it allows the water that accumulates in that area to enter the structure that is buried in the ground.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if the pipe leads away from that in the direction of the chamber at the south end of the proposed detention system.

Mr. Palus: state that was correct.

Mr. Inglima: asked where the details for the E inlet were located.

Mr. Palus: stated the E inlet is an industry standard in terms of road construction; described the inlet in detail.

Mr. Inglima: asked if Mr. Palus referred to road construction.

Mr. Palus: stated a commercial grade structure can still be placed back there; not a plastic inlet; double inlet; there are no details specifically for the E inlet on the plans; can be provided; represents it is a standard E inlet.

Mr. Inglima: asked if there is a plan that shows the invert from that inlet to the structure.

Mr. Palus: stated, "Sheet 4."

Mr. Inglima: stated that sheet 4 indicates that the inlet will have a top of grate of 108.5 and an invert of 106.

Mr. Palus: stated that was correct.

Mr. Inglima: stated this will go into the detention structure number 2 which are 4 ft. pipes that are located at inverts of 105 up to 109.

Mr. Palus: stated this was correct.

Mr. Inglima: asked if the tops of the inside of the wall of the pipes would be 109.

Mr. Palus: stated they would be 109.

Mr. Inglima: stated the tops of the inside of the pipes are a half a foot higher than the grate of the lawn inlet.

Mr. Palus: stated that was correct.

Mr. Inglima: asked under what conditions would water be at the top of the inside of the pipes in the detention system.

Mr. Palus: stated under no condition.

Mr. Inglima: stated at what point will it be flowing out of that system.

Mr. Palus: stated it starts at elevation 105.

Mr. Inglima: asked what the top of the weir that controls the flood storm elevation in that chamber.

Mr. Palus: stated there are three outlet structures and an overflow; referred to drainage calculations; shown on sheet 10 of 11; the 3 inch orifice is at an elevation of 105; the 4 inch orifice is at elevation 107 and then there is a 2 ft. wide weir at elevation 108.35.

Mr. Inglima: stated the detail Mr. Palus is referring to on page 10 of 11 shows the weir and the outlet openings is called “control walls” in the lower left area of the plan.

Mr. Palus: stated this was correct.

Mr. Inglima: stated that water will always be going out through the 3 inch opening at invert 105.

Mr. Palus: stated when it rains.

Mr. Inglima: stated there is a 4 inch opening at 107; the overflow weir is at 108.35.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if it was Mr. Palus’ position that the water will never reach the overflow weir.

Mr. Palus: stated “No.”

Mr. Inglima: asked under what storm condition will the water reach 108.35.

Mr. Palus: spoke regarding the standard concentration storm; the 60 minute storm and the 120 minute storm; then analyzed the 2, 10 and 100 year storm events; has 12 different storm events; all information in the drainage report; can certainly look it up, but would be easier to provide the information in the future instead of reviewing all the data previously submitted.

Mr. Inglima: asked if it was Mr. Palus’ testimony that the elevation will be exceeded by all of those storms.

Mr. Palus: stated “No.”

Mr. Inglima: asked if it would only be the 100 year storm.

Mr. Palus: stated again he would have to review the individual storm; the elevation of 108.5 which is the E inlet rate will not be exceeded.

Mr. Inglima: asked how that was determined.

Mr. Palus: stated by basic calculations.

Mr. Inglima: asked if there were any circumstances based on Mr. Palus’ calculations that water will back up inside the detention system and escape at grade from the grate that is indicated as the proposed E inlet in the rear of lot 5.

Mr. Palus: stated that was correct.

Mr. Inglima: asked if two storms occurred that followed each other in close sequence, and the detention structure was not able to empty completely after the first storm before the second storm started contributing rainfall, would that change Mr. Palus' calculations and findings with respect to the capacity of the detention system.

Mr. Palus: asked if Mr. Inglima was discussing a storm that exceeds the design standards and the RSIS standards.

Mr. Inglima: stated "Yes."

Mr. Palus: stated then yes it would change the calculations; if you use storms that are different than the standards that are dictated in the RSIS then you will get different answers.

Mr. Inglima: asked if Mr. Palus should use information based on historical rainfall totals when designing a system like this.

Mr. Palus: stated the RSIS provide specific and detailed parameters for calculations to be done under; that is the intent of the RSIS; procedures that are followed.

Mr. Inglima: asked to assume that this horrific event occurs and the capacity of the system is exceeded; will it be able to have an outflow through the proposed E inlet.

Mr. Palus: stated that on any of the required design storms this doesn't occur.

Mr. Whitaker: objected; stated they are working on assumptions now that go beyond the standards that the Board is hear to enforce which are the RSIS standards; hypotheticals can be reviewed all evening; Mr. Inglima has been given a lot of latitude; his questions are beyond what this Board has to consider; at this point, not consider those issues and work with the standard that the Board needs to consider; then go back to the RSIS standards.

Chairman Hanlon: informed counsel there was only 25 minutes left to the meeting.

Mr. Cucchiara: stated in respect to those questions, Mr. Inglima asked the question whether or not if there was a follow up storm; did Mr. Inglima have a time interval in terms of that question.

Mr. Inglima: stated he explained the second storm would occur before the detention structure was able to empty fully.

Mr. Inglima: asked if all of Mr. Palus' calculations assume the chambers and the pipes are empty at the beginning of a storm event.

Mr. Palus: stated, "Yes."

Mr. Inglima: stated with respect to the E inlet, why was an inlet proposed at the top of two retaining walls on the north side of the stone trench.

Mr. Palus: stated the purpose is to collect surface run off from the areas of lots 5 and 6 instead of permitting it to go over the wall; created an artificial low spot on their own property to ensure they contain the water on their site.

Mr. Inglima: stated there is nothing like that on any other lots.

Mr. Palus: stated that was correct; that is because they are able to direct the water towards the detention basin on the other lots; with the elevations of the grade in the area of the detention structures, in comparison to the elevation of the grade behind the home on proposed lot 5, they were not able to accomplish the same thing; stated Mr. Inglima was trying to get to the point of what happens if it backs up out of the catch basin during some mammoth storm event that is not contemplated in the RSIS; wants it to be clear that all the water from the eastern side of the site is going there now anyway; if this project is never built, and never any detention basin created, that is where the natural low point of the property is; if it rains 100 inches, all that water will go down there anyway; better off than if nothing had ever been built; detention basin makes it better.

Mr. Inglima: asked if there was a blockage in either the 12 inch pipe or the 18 inch pipe, or another factor that causes the water that is leaving the system to be delayed; why would there be an outlet at the top of a hill like what has been proposed.

Mr. Palus: stated it is not at the top of the hill; it is in the low point that they are creating.

Mr. Inglima: stated Mr. Palus is putting it in an area where they are filling 5 ft.

Mr. Palus: stated he must look at the other grades around the inlet; there is an elevation of 109 around this inlet; the inlet will sit in a created depression; discussed if there were other blockages; the elevations of those grates out in the street are 107 plus or minus; under that scenario, that will be the lowest point of the system.

Mr. Inglima: asked if ponding in the street is better than having it come out of the last basin.

Mr. Palus: stated Mr. Inglima asked what would happen if one of the pipes were clogged; in that situation, the inlet which feeds the 18 inch pipe, is the lower point in the system than the E inlet and that is where the water would come out; asked if better or worse; would rather see the water overflow into a municipal street as opposed to onto private property.

Mr. Inglima: asked if Mr. Palus calculated how much area will contribute run off to the E inlet behind the house on proposed lot 5.

Mr. Palus: stated it was done as a composite area for the overall site; it is a relatively small area; backyards of a couple of the properties; impervious surfaces of those homes will be tied to seepage pits; relatively small, but important to capture nonetheless.

Mr. Inglima: asked if Mr. Palus felt this was an area that should not be directed to the stone trench.

Mr. Palus: stated it was their effort to capture as much of the water from their site and pipe it to the detention basin.

Mr. Inglima: asked Mr. Palus regarding his tree removal and planting plan; referred to sheet 9; asked if Mr. Palus verified in the field that the trees that are shown on the plan and, or as supplemented by the DAB survey which was marked earlier as surviving the construction, are still marked to survive.

Mr. Palus: stated he did indicate the trees to be removed.

Mr. Inglima: asked if the “X”ed out trees were ones that would be physically removed or are there trees that are “X”ed out that he determined will not be viable due to construction.

Mr. Palus: stated if he determined a tree was not viable to remain post construction, then that would be the reason for making the determination to remove it proactively.

Mr. Inglima: spoke in regards to trees within the right of way of Hollywood Avenue, Van Dyke and WSRR, asked if Mr. Palus had made a similar determination as to their viability.

Mr. Palus: stated if an existing tree cannot be accommodated it has been shown to be removed.

Mr. Inglima: stated there is a 36 inch oak tree which is indicated in the SE corner of the site; stated there are no exes on the tree.

Mr. Palus: stated there is an “x” through it; tree is not in good shape because it has been sitting at a low point; subject to flooding over the years.

Mr. Inglima: asked if there were any other trees on the SE corner of the property that are not reflected on the plan.

Mr. Palus: stated the trees were identified by Boswell Surveying on a survey dated 7/2/10; some of those trees may have come down or grown; had a supplemental tree location survey done by DAB; in addition the Boswell survey identified trees larger than 12 inches; the DAB brings it down to a dimension of 4 inches.

Mr. Inglima: stated there are a number of trees that are indicated along the north boundary line of the site; discussion of a berm in that area; need to make changes to the tree plan to indicate the impact of the installation of a berm on the trees shown just inside the boundary line.

Mr. Palus: stated there is no berm proposed; no assessment made.

Mr. Inglima: stated he had no further questions at this time.

Chairman Hanlon: stated this meeting would not be opened to the public this evening for questions; new items have been brought up; does not know when the engineer will be back; possibly sometime in June; believed Mr. Whitaker would be bringing a new professional/expert next week to testify.

Mr. Whitaker: stated the engineer has concluded; the public has already questioned the engineer.

Chairman Hanlon: stated there were items that were brought up this evening that were not previously discussed; stormwater conditions; line of sight items; drainage calculations; E inlet; elevation data.

Mr. Cucchiara: stated the public had the opportunity to cross examine the engineer on his testimony; items brought up by the objectors all followed the direct testimony; it has to end somewhere; suggesting public has questions based upon testimony that was elicited today, now would be the time to extend time to them; not carry it over to the next meeting.

Mr. Whitaker: stated the list of topics Chairman Hanlon made, were topics which were all discussed on the direct testimony and further explored on the cross examination on specific topics; much of the information is supplied in the three drainage reports which are marked as exhibits already; there is no new topic that Mr. Palus spoke of tonight that was not part of his original presentation or part of the application; all topics have been testified to.

Chairman Hanlon: asked if any members of the Board had a question for the engineer.

Mr. Iannelli: asked what the life of the water detention systems were.

Mr. Palus: stated they could last 100 years with general maintenance.

Chairman Hanlon: stated he will open the meeting to the public but they will have six minutes to ask their question; this six minutes will be shared for the residents wanting to ask questions.

Mr. Jim Albes, 31 Valley Forge Court: stated he asked a series of questions; requested engineer data; asked what the expected annual maintenance cost of maintaining the storm drain would be; drainage wells that the roof top drainage goes to.

Mr. Whitaker: stated the roof top drainage is maintained by a homeowner; standard throughout; borough imposes it; RSIS requires them; understood as part of the ownership of the home.

Chairman Hanlon: gave a more detailed explanation regarding the maintenance of the Ho-Ho-Kus detention system.

Mr. Palus: spoke directly with the resident regarding his report; pits sized to handle the entire volume of run off.

Mr. Inglima: stated he wanted to have a brief discussion of the relevant ordinances and statutes that allocate the responsibility of maintenance of drainage structures; developer responsible, not residents.

Mr. Whitaker: objected; Mr. Inglima was given the opportunity to explain something, not pontificate on what his position is.

Chairman Hanlon: stated the application is carried to May 22, 2014.

Motion to Adjourn: Cirulli, Rorty

All Board Members present approve motion to adjourn.

Meeting adjourned at 11:00PM

Respectfully submitted by:

JoAnn Carroll
Planning Board Secretary
June 11, 2014