



# TOWN OF OXFORD

S.B. Church Memorial Town Hall  
486 Oxford Road, Oxford, Connecticut 06478-1298

**www.Oxford-CT.gov**

**Oxford Conservation Commission / Inland Wetlands Agency**

**THESE MINUTES ARE  
SUBJECT TO APPROVAL.  
APPROVED ON: \_\_\_\_\_**

## **PUBLIC HEARING MEETING MINUTES**

**MONDAY, JULY 21, 2014**

This **Special Meeting (Public Hearing)** of the Oxford Conservation Commission/ Inland Wetlands Agency was held in the Main Meeting Room of the S.B. Church Memorial Town Hall, Oxford, Connecticut on Monday July 21, 2014 and was **CALLED TO ORDER** at 7:34 PM by Chairman Michael Herde.

**CALL TO ORDER / ATTENDANCE:** Chairman Michael Herde, Commissioner Bill Richter, Commissioner/Acting Secretary Tom Adamski and Commissioner Ethan Stewart.

**ABSENT (COMMISSION MEMBERS):** Commissioner/Secretary Sue Purcella Gibbons

**ATTENDANCE (STAFF):** Inland Wetlands Enforcement Officer Andy Ferrillo Jr., Administrative Secretary, Denise Randall

**ABSENT (STAFF):** None

### **PLEDGE OF ALLEGIANCE:**

Chairman M. Herde led the Pledge of Allegiance.

Acting Secretary/Commissioner T. Adamski read the Legal Notice for the record and the Public Hearing agenda.

The Public Hearing is being held for application (IW 14-54) Oxford Towne Center, LLC, 274-300 Oxford Road, (map 34, Block 9, Lot, EV6, 31B, 31A, 25) Mixed use development to go to public hearing due to public interest and potential significant wetland impact to a wetland/watercourse.

### **CHAIRMAN OUTLINES INTENT OF PUBLIC HEARING AND PUBLIC HEARING PROCEDURES:**

Chairman M. Herde outlined the Public Hearing procedures as it is relevant to the Inland Wetlands and Watercourses aspects of this application only.

Chairman M. Herde asked the Commission Members if they had any conflicts of interest. **None Stated.**

Chairman M. Herde asked the applicant and his representatives if they felt the Commission Members had any conflicts. Mr. Haynes and Attorney Dominick Thomas both stated no.

### **SECRETARY TO READ OFF DOCUMENTS THAT WILL BE PART OF RECORD:**

Secretary/Commissioner Tom Adamski read the following new documents that will be part of the record:

### CORRESPONDENCE

- 1) Application submitted for Oxford Towne Center for site plan dated 6/10/14.
- 2) Storm Water Mgt. report, wetland delineation, functional evaluation, site plan maps and fee payment schedule, along with fee on 6/10/14.
- 3) Letter to Commission from Langan Engineering dated 6/19/14.
- 4) Copy of check for impact fee of \$4,161.75.
- 5) Petition with 54 signatures to conduct a public hearing dated 6/24/14.
- 6) Letter from Nafis & Young regarding review of site plan dated 6/25/14.
- 7) Public Hearing Legal Notice send to the Voices Newspaper and The Waterbury Republican dated 7/1/14
- 8) Proof of legal notice from the Waterbury Republican dated 7/3/14.
- 9) Environmental review from Southwest Conservation District by Roman Mrozinski dated 7/17/14.

### PRESENTATION BY APPLICANT/APPLICANTS' REPRESENTATIVE(S):

Chairman M. Herde stated: At this time I'm going to turn it over to the Applicant and can we start off with notification of the abutters.

Attorney Dominick Thomas stated: Cohen and Thomas, 215 Main Street, Derby, CT. representing the Applicant, Oxford Towne Center, LLC. Just one point I would like to make and is the legal notice that was printed in the Voices and in the reading of the correspondence, there was a notation that the legal notice was also published in the Waterbury Republican which I believe this was a jurisdictional notice keeping the appropriate times as the Voices newspaper come out only twice a week. I just wanted to make that note for the record. For the record what I submitted and I chose to make a determination that the definition of the word abutter included, even though it doesn't technically include people across a public highway, and notified people across the highway and gave you a copy of your GIS with the people notified highlighted and we received all but 4 green cards.

Chairman M. Herde stated: You can give them right to the clerk please.

Attorney Thomas stated: Without editorializing I will make 2 points. Number 1, I think I have make this point before, I think you need to change your regulations to say no more than 15 days, you don't want people doing it a month ahead of time, that is the normal requirement. Secondly, instead of the green cards, you may want to just use proof of mailing as some people don't pick up their green cards. I would like submit some documentation for the record but before that we are going to make our presentation tonight with our engineer and our wetland scientist concerning our reports which I will present to you. This proposal before you has only impacts in the upland review areas. The filling of the man made detention and sediment basins related to the quarry has already been approved by this agency as part of the permit for the regulated activity for the excavation permit which was granted about 10 months ago. Now before you is the permit for activity, again only in the upland review area and related to the entire approved concept plan and I will briefly tell you the procedure under the new village center

mixed use district which the planning and zoning Commission acted on in passing a text amendment and then an application was made for the concept plan and an application was made for a zone change for these parcels which contain 32 plus acres. The pending application before the Commission is the first of several site plans to go before the Planning and Zoning Commission. However, before you is for wetlands permits and regulated activity dealing with the entire concept plan, as it exists right now, as you are aware as I'm sure people have stood up before you and stated the sine qua non, the state of our Supreme Court of Inlands Wetlands applications under the Inlands Wetlands and Watercourses Act is a determination on whether the proposed activity will cause an adverse impact to a wetlands or watercourse. As I stated, we will make the presentation that our application for activity in the upland review area, that activity has absolutely no adverse impact upon any wetlands or watercourse in the area. I would also point out to you that even in the report by the Southwest Conservation District done by Mr. Mrozinski, no where does it state that the proposed development will have an adverse impact upon a wetlands or watercourse. He does go further than his expertise but it does contain certain suggestions that the developer will consider and in fact in some instances has already put in. Despite the fact that there was no impact to wetlands, we will not address the issues of radon or structurally fill which is well beyond Mr. Mrozinski expertise and irrelevant to this application but we will certainly address some of this suggestions as they relate to issues that we believe are relevant to this Commission, such as the thermal condition of the water, the treatment of the water how its done and certain areas where the suggestions while looking nice on paper, we do not have engineering and are not reasonable in accordance with standard engineering terms. The presentation will be made to you and I will present to you some documents for the records. The 2 presentations will be our Engineer from Langan Engineering Kyle Bogardus and the next presentation will be from Michael Klein, Principal Soil Scientist from Environmental Planning Services. (Reports were given to Denise Randall- Secretary)

Kyle Bogardus- Langan Engineering and Environmental Services, Professional Engineer with the State of Connecticut and certified in professional erosion and sediment control, introduced himself. I would like to do is point out the existing conditions, walk through the storm water treatment train, walk through the site plan and some of the storm water quality measures and quantity measures as we are proposing as it relates to the application and the storm erosion and sediment control measures as well. Michael Klein will follow me with his information with some of the same topics. (Pointing out the Little River and Route 67 on the map) As you can see on the development is about 32 acres and at the rear are some man made isolated wetlands as a result of the Quarry excavation back in the fall. The 4<sup>th</sup> wetland, called Wetland 4 (pointing out on map) Again, just to understand the existing conditions, there are numerous outfall, drainage outfalls near route 67 associated with the roadway and the grass line. The outfall from Echo Valley Road is located here (pointing to the map) will have a 30 inch RCP in-section on the banks of the Little River. Are there any questions on the existing conditions or anything else at this point?

None.

Kyle Bogardus continued: (pointing to a different map) This generally represents the overall site plan for the project, this is the conceptual site plan approved by the Planning and Zoning Commission by the Zone change process. This will be a mixed use development with medical office building, restaurants, retail, a bank and the main anchor of the development which is a grocery store. You can see there is landscaping throughout and the gray areas indicate impervious surfaces and parking areas associated with the buildings. The area of wetlands 4 located right off the edge of the areas of this corner. Are there any questions on the site plan?

Chairman M. Herde asked if anyone had any questions at this time.

None.

Kyle Bogardus stated: As far as the storm water management and the treatment train, I just want to point out; before we used any sort of overview of the project, this map here, at the bottom of the page (pointing to the area with a laser pointer) represented the storm water of what was envisioned. Through the review process by the outside agencies, we have enhanced that package quite a bit so I'm mostly speaking to the enhanced storm water treatment train. On the left, pointing to the map, is a schematic diagram that helps illustrate some of these storm water management features out and I will walk you through when a rain drop lands on the site to when it ultimately discharges and leaves the site. The purple area throughout the residential development that is envisioned to be pervious pavers and we have used these a lot in both residential and retail developments to storm runoff into the ground water sooner. A typical picture of that is seen here (pointing to a pictures) Underground filtration chambers, highlighted on your reports, will be used for residential and commercial zones. Cross sectional use, here and here (pointing out on map) I know your familiar typically barch chambers, open bottom, gravel laid bottom, storm water enters those chambers and either can be contained or infiltrated into the sub straight providing ground water re-charge. In our storm water report we reference the studies done at the University of New Hampshire and the sheets you have in front of you also have a little more background about that study. Underground filtration is the preferred method. We have always had those in the plan and you can see if has not changed. Also, all the green areas shown on the map are rain gardens and you can see a significant amount of rain gardens in the parking lot areas. This would be an area where storm water run off from the paved area would enter the curbed island, called a flush condition at the low point storm water enters. Those areas percolate into the ground, there are under drains and soil media in that area. We have used this quite a lot and actually it was one of the comments from the Southwest District report, to utilize them and they are already in the plans and we have taken it a step further and added a significant amount more. There are photos here of ones we have already installed at other projects. (Showing & commenting the other photos) These work really well in residential areas as well, the roof leaders goes right into those areas and so there would be good processed material that will percolate well. One thing not noted in the review comments was the use of water quality chambers, any of those underground infiltration chambers is good for collecting sediment from the parking lot surfaces and floatables you can sometimes see, especially with the retail development. The schematic map shows how it's up stream, if you will, of the underground infiltration systems. Some of the larger, more embellished rain gardens water quality basins; we have several of them (pointing them out). Moving through this diagram and the storm water works its way through the development, one of the areas we have taken a look is the potential for converting some of the clean runoff from the roof structures of the building and this was one of the review comments from the Southwest Conservation to take advantage of the fact that is not some of the pollutants that you see in a parking lot up on the roof and re-direct some of that to the wetland areas to replenish them. What we are proposing is that for parts of the roof structures be directed to the upland review enhancement area, highlighted in this green area (pointing to the map). Again this is wetlands 4, and this green area indicates an area that we are proposing to create an enhancement area adjacent to the wetlands, right off the edge of the existing wetland. There will be plantings surrounding it. Going through the treatment train, all of our discharge enters either the drainage system on Echo Valley Road or the system in Route 67. We are proposing systematic upgrades on the existing route 67 storm water system and if your familiar with this section, (pointing to map) its curbless and what we call super elevated, so all the storm water that is on the road forces its way back to the inside edge of Route 67. If you look out there, there is probably an 18 inch deep trench that's been eroded basically from about the existing quarry entrance down to the this area (pointing to map) and down to the Little River. There is a head wall completely buried and clogged with vines in the edge of Rte 67. What we are proposing and what we have reviewed with DOT hydraulic engineers is a test basin a occurred system along the whole frontage of the project. This will capture the storm water from Route 67 catch basin pipe network and control it in a manner before it ultimately connect to the Echo Valley Road drainage system. We think it's an upgrade to the previous proposed system. The catch basins can be cleaned and the sediment dealt with appropriately. One thing is we are also doing is an upgrade the portion of the Echo Valley Drainage system. The outflow will enter without causing additional backup in the Echo Valley Road. From there once it's in the town drainage system, the outfalls to Little River will remain the same. One thing we haven't really mentioned is how much surface or soil contact will have with the storm water treatment train, that was intentional for this development to control what would go into the Little River.

Mr. Bogardus asked if anyone had any questions.

Chairman M. Herde asked: As far as the underground treatment chambers, is there a life stamp? For the whole system is there a point where the little bit of fines that do get in it, to degrade the system to a point where it's not working from what it was originally designed and how do you know when it isn't working?

Mr. Bogardus replied: All storm water treatment trains and treatment chambers are no different than the above ground detention system requirements. Recommendations from the manufacturing will vary, depending on which one you use but typically require annual cleaning of the infiltration system and they do that in a couple of different ways. They have a sort of jet vet that goes through the underground chambers pushes any sediment and fines to one end and then a Mac vac type vacuum that suctions it and cleans it out.

Chairman M. Herde asked: So that is right inside the whole chamber area and it has a gravel bed in it, so does it disturb that gravel bed?

Mr. Bogardus replied: No. The other piece of it, they all have an isolator row, a pre-treatment row where the storm water goes first and that's rapid filter fabric, that particular chamber row starts pushing to the other adjacent chambers. (Mr. Bogardus then pointed to an area of it on the map)

Commissioner T. Adamski asked: So this would be sort of like a sediment forebay?

Mr. Bogardus replied: Exactly, right.

Chairman M. Herde asked: Are the chambers in disturbed ground, or in virgin ground? Is that a prepared bed and how far down is it? I know there has been a lot of excavation going on there and are the soils specifically soils that are ready accept it.

Mr. Bogardus replied: The reason why it is located where it is, because that is in the fill zone. We are creating that background so that we can control the soils and the materials going in. It is very good for percolation, the nature of the material being processed on site.

Chairman M. Herde asked: How about oil separation? Is that just going through the swirl concentrators or is there something specific, just for the oil?

Mr. Bogardus replied: There is no specific use for an oil water separator like if there was a use that was focused more on that like for a typical gas station, then there would be a need.

Chairman M. Herde stated: Ok. It's typical on all commercial applications in Oxford that we do require oil/water separators before Zoning and maybe a water quality, as we like it to be in a format that it could be removed at any given time. Whether it would be drips from every day cars that are parked and we just have found that on commercial properties it seems to be more accumulative there as well as potential spills. Of course you get the guy who wants to change his oil in the parking lot right outside the grocery store. We have seen it done right over a catch basin and it's actually more fairly common than most people would think. That is something we are going to looking for protection over.

Mr. Bogardus replied: Sure. When you have the recommendations from the manufacturer or for the water quality chamber but depending on the manufacturer they provide some of those exact treatments.

Chairman M. Herde asked: Ok. Does any of the water from the entrances, go out into that system untreated or does it flow back into your system untreated?

Mr. Bogardus replied: It's a good question. There is a small portion here (pointing to map) that does get collected into the state drainage system without water quality treatment. Some of the challenges with that (pointing the right

of way line on map) so it's actually back pretty far into the development area and D.O.T. typically doesn't like to have water quality chambers or water quality separators inside their property because they don't want to maintain that portion.

Chairman M. Herde asked: How big of an area is that and how many basins end up going out that way?

Mr. Bogardus replied: It's just the last 2 of each portion of them.

Commissioner T. Adamski asked: Is that because of the topography?

Mr. Bogardus replied: Correct, yes. Basically the generally its flat at entering the site and then goes up a grade so don't have that sump or sag condition where it goes down and goes back up (pointing to map) and that combined with the right of way which is much wider than an typical right of way.

Chairman M. Herde asked: Two things from the Southwest Conservation District's report. I came up with 2 things that you might be able to explain fairly easily. One is, on the temporary sediment traps, it said that the fines will probably need some flocking or something to really catch that flour type fine sediment from the procedures, is that addressed at all here?

Mr. Bogardus replied: Yes it has. Most of it is explained in Michael Klein's report you will hear in a few minutes.

Chairman M. Herde asked: Ok. The other question is that Mr. Thomas stated that there was no wetlands impact and the only thing I saw on this report, not necessarily specifically saying impact, but it does say that the storm water system will back up during flood stages on page 3. It doesn't come out and say what stage flood stage either so I understand that it is a little bit vague.

Mr. Bogardus replied: I was interpreting it to read that the Echo Valley Road drainage system, there is no good back up on the proposed drain system there, but I think he is referring to the existing conditions of the connection of Echo Valley Road to Little River. What we are going to do to address that is to upgrade in those last couple of sections of Echo Valley Road drain system to address the flood there.

Chairman M. Herde asked: Alright, so it won't back up during the flood stages?

Mr. Bogardus replied: I'm not sure what he is referring to.

Chairman M. Herde asked: So at what flood stage is it designed to work completely at?

Mr. Bogardus replied: So the drain system is designed to work during a 10 year storm throughout, without any overtopping.

Chairman M. Herde asked: So at the 25 year storm, it may.

Mr. Bogardus replied: Yes, it may, portions of it. We have a pretty good matter of topography working our way down to it.

Chairman M. Herde asked: Ok. Does anyone else have questions?

Commissioner T. Adamski asked: Yes. Peak storm water runoff, could you do the comparison after the development as a quarry and pre-quarry?

Mr. Bogardus replied: The pre-quarry, the combined total site discharge is 86CFS. Before the quarry took place there was sort of a ridgeline that ran (pointing to map) through the development so the 25 year storm pre-quarry

total discharge is 86 CFS and existing quarry is 61 CFS. It jumps down and the reason why is there are now pockets of man made wetlands and we change the topography to contain this. And the proposed with the underground system is now 50 CFS for a 25 year storm. The extra capacity really addresses the past concerns for Echo Valley Rd.

Commissioner T. Adamski asked: The pervious pavers, are they vegetated in the space or gravel?

Mr. Bogardus replied: (Brought a sample over to show commission) This is an example of it and what we have used in the past and it will have a tend row of grass in that media and typically what we use is a sort of hexagon shape so it has a larger opening. One of the challenges is to get grass to grow and to be viable. We have had success with this type of product.

Commissioner T. Adamski asked: On the infiltration chambers, there is gravel and there is a soil type below that?

Mr. Bogardus replied: Mostly just gravel.

Commissioner T. Adamski asked: And bedrock below that?

Mr. Bogardus replied: Correct.

Commissioner T. Adamski asked: Is there any infiltration through that? Is that possible?

Mr. Bogardus replied: There is. Because of the earth excavation that has already taken place, there are fractures throughout the bedrock so you do get additional percolations through there.

Commissioner T. Adamski asked: Ok. What is the maintenance on the rain gardens? The rain gardens in the large parking lots which will obviously be sanded in the winter, is there concerns about a lot of run off with sand plugging the rain gardens?

Mr. Bogardus replied: All storm water systems do require some maintenance and that will depend on the level of the severity of sanding. The good thing about those is they sort of isolated in curb lines if you had to do some maintenance work, you can replenish the soil media an address those concerns.

Commissioner T. Adamski asked: Will there be an inspection and maintenance schedule?

Mr. Bogardus replied: The back end, after all the stores are open and there is a commercial operations permit needed from D.E.E.P. and we have to register this storm water treatment train and our maintenance plan with D.E.E.P.

Commissioner T. Adamski asked: With regard to oil removal in the chamber, are you looking at oil absorbents?

Mr. Bogardus asked: Do you mean as part of a spill protection plan?

Commissioner T. Adamski replied: No. As part of the storm water treatment?

Chairman M. Herde added: Just even containing the day to day drips. We feel like typically, especially on a large project such as this, there is a certain amount. As people say, after a rain storm, when you pull up to a stop sign or stop light and that is usually the most slippery area. Cars drip while they are moving all of the time and when they are parked in a parking lot for a period of time there is certainly a lot of dripping coming out with that many parking spaces in an area.



Mr. Bogardus replied: One thing we added, that will help capture it a little bit sooner and it's a bit subtle, but you can see the contours in this parking lot, (pointing to a map). There is a grass paver strip down in the middle to direct storm water to those surface areas. We can see what else we can do for oil absorption at this point. The storm water treatment train is somewhat robust, it has several layers throughout and all those layers continue to polish that storm water, regardless of that media.

Commissioner T. Adamski asked: I have one more thing. If this were a residential development, there would be a set aside of open space property, has that been considered for this development?

Attorney D. Thomas replied: In the regulations, there is a regulation for a village center mixed use district provides that in the condition of approval that can be larger as a public open space and that commission has the ability to determine within the residential when the site plan is submitted at that time, whether or not it feels the need for additional space. At the present time, they are focusing on recreational open space and right at the present time there is a proposal in the concept plan for a park area. The village center mixed use district has no open space requirement.

Commissioner B. Richter asked: What are we going to do about the removal of salt, left over from the snow piles?

Mr. Bogardus replied: As part of the conceptual site plan approval we had the snow removal plan in place and there are, what we call pervious paver areas, that are a good place to stock pile snow. You will get some, as you see in a lot of developments, a surface area of salt and things and at the end of the winter season, part of that operation permit that I'm referencing for D.E.E.P. will be sweeping and collecting of this and done before the April spring rains start coming in.

Chairman M. Herde asked if anyone had anymore questions.

Mr. Galligan stated: Kyle, do me a favor and just clarify on page 10 what the pre-development and post development flow is to Echo Valley Road. I think that it is important.

Mr. Bogardus replied: The Echo Valley Drainage system and what I can do is walk through the various storms. So for the 2 year storm, pre quarry reads 21.37 CFS, existing quarry, 12.23 CFS and proposed 6.63 CFS. So 2 year storm is about half what is going out there for existing conditions today and a ¼ of what it was 2 years ago. That trend is generally consistent throughout other storms analyzed. Pre-quarry, 10 year storm 48.97, existing quarry 22.00, proposed 17.11 CFS. The 25 year storm pre-quarry- 59.58 CFS, existing quarry 25.59, proposed 22.23 CFS. The 100 year storm is pre-quarry is 87.10 CFS, existing quarry 34.41, proposed 34.32 CFS. For that drainage system has a reduction in flows not only before the proposed but even existing now.

Mr. Galligan stated: For your grass pavers, can you explain a little bit more about what they are used for and their location. You and I both know what they are for, but I'm not sure they understand how they are placing them.

Mr. Bogardus replied: Maybe it's best to do it side by side. (Placing the maps together) This area is the low side of the parking lot (Pointing rain gardens and pavers out) The grass pavers are on the edge of the parking areas. We find that they are the best to use there and when there is an intermix there it's a little more challenging in a commercial area as far is snow piling so that is why we like to keep them on the edge. In the residential zones, we envision these in the common parking areas such as the garage door areas, guest parking throughout.

Mr. Galligan asked: I know you have to file that storm water maintenance plan with D.E.E.P. can you provide a copy to this commission as well?

Mr. Bogardus replied: Absolutely.



Mr. Galligan asked: One of the Commissioner members discussed the use of oil socks in the catch basins and if you can just look into that, that might be something they would recommend for commercial sites.

Mr. Bogardus replied: Yes

Mr. Galligan thanked Mr. Bogardus.

Mr. Bogardus stated: I'm going to start the discussion on storm water and sediment controls. I'm taking some of your thoughts and writing notes and enhancing them and applying them as appropriate. Again, you will recall we have spent a lot of time with the Commission on the quarry excavation. We have the anti-tracking pad in place and it worked very well. We will have ample space for sediment basins, 32 acres, its going to be a bit of a phase, not a long phase but this main development back here will go in full speed ahead and will be in construction soon. (pointing to the map to show the storm water phases and silt fences and hay bales will be placed) This is consistent with the Commissions recommendations and approvals during the excavation phase. As the storm water management system starts and starting getting into piping networks and catch basins, inlet protection both existing and adding new ones during construction. One advantage we have, is room; we are not as tight so managing storm water will be better throughout construction. One of the comments touched on, (pointing to area on map) is a large bio filtration system, there are 2 challenges with that question and 1 does not address what we are all trying to achieve in terms of thermal impacts. The other challenge is has to do with the topography of the site and understand some of the nuances of the site but this is a higher zone. We have what we call buck grade, going backwards to get storm water to an area back over here (pointing to map). There is an Echo Valley Road pond which can be discharged to that pond as well.

Mr. Bogardus asked if there were any questions:

None.

Mr. Michael Klein stated: Good Evening, I'm a Biologist and soil scientist, my office is West Hartford. We have looked at this site for several years and the development site and I have already worked with the same engineers for the excavation project. I have submitted a wetland delineation that is dated today which was given to each Commission member. This photo was taken when the site was disturbed (showing a photo exhibit) and shows a sparse area that is un-vegetated, overburden of material, piles of stone showing mostly pioneer species such as golden rods, poplars and invasives such as mugworts. There are not a tremendous amount of significant natural resources on site. There were 2 small wetland pockets used for collecting storm water runoff during the excavation process. The sedimentation that was constructed for controlling the runoff and in that area the water was very warm with duckweed, lots of banks, very densely vegetated primarily with Autumn Olive and other invasives 9 inch plants and granted permission from the Commission to remove these 3 areas that were graded and basins filled in. This basin here (pointing to map) had the largest expanse of open water with very little flow and discharged directly to wetland 4 and this very small area of wetland (pointing to map) off site on Echo Valley and naturally discharges enters to eventually the Little River. If you look at the enhancement information that is attached to my report summery you will see that these open water storm water management or open air does not have a significant impact. So we have these wetlands 1 and 2 that are very, very small and totally isolated, totally man made features with absolutely no adverse effect on storm water quality if it was eliminated. Wetland 4, which is the most significant wetland area on the site. Has some wetland features such as marsh associated with it but is not part of the contiguous system that terminates right here at the entrance. We looked at the National Diversity Database and no records overlap the site on known location species throughout. On page 2 of our report, Principals and Functions of Wetlands 1, 2 and 3 and storm water control as a result of the Quarry. Wetland 4 is part of a headwater reference system and identified is the ground water discharge. On page 6 of our report, pointing out under direct impacts 7.1 and the first sentence should read the proposed commercial and residential development on the site will not result in direct impacts to wetlands and watercourse. Wetlands 1, 2 and 3 have already been permitted to be altered and then eliminated. Therefore, what we really focused our impact assessment on site design, mitigation and planning measures is on erosion and sediment control after construction

and those are the areas of potential adverse impact. (Placed a new drawing exhibit) This drawing is contained in my report and what I did was reviewed the drawings on the control plan that was prepared by the civil engineer and certainly meets the requirements of the Storm Water Manual and Erosion and Sediment control manuals and I did agree with Southwest District that there were some erosion control measures that could be enhanced. I would like to go over my recommendations with you. One of the designs in the erosion and sediment controls that are in the manual is that they do a very good job with sand size particles. There are 2 ways we propose to address that and one is to use a modified outlet for the major storm water treatment where it draws water from the top or at least not the bottom of the basin where all the sand sediment is. Standard temporary sediment trap overflows from the top but in case we are there often and in conjunction with a basin there is often an outlet control structure so rather than go from the bottom, we recommend this to go from the top. The other way to make these basins more effective is to work by gravity and make the particles bigger. The other way to make the basin more effective and the sediment bigger by adding a flocculent which was in Roman's report and I whole heartedly believe that as well and so that the material that is already settled out that's fine, but know when you get to the next step of the treatment train, you can add this flocculent. Also downstream you can add it at the core, check dam or swale. I propose those modifications to the erosion and sediment control plan. The other one is for wetland 4, as I mentioned the most significant wetland on site, and we propose to measure to protect it and enhance that area. The site plan had a sediment trap here (pointing to the map) and we propose to move that back (pointing to the southwest, closer to the property line) near a stabilized slope with a retaining wall built here (pointing to map) to contain storm water during construction. (Pointing to proposed walking trail and where the overflow swale will be) The only other comments for erosion and sediment control plan I would recommend Langan Engineering to be present for environmental site monitoring during the construction project.

Mr. Bogardus stated: One thing I would like to clarify is, we didn't initiate that already as part of the site but we will add that as part of inspections as well.

Mr. Klein stated: The other element and I know the Commission is in favor of the sediment silt fence and hay bale perimeter controls. I personally like the continuous silt socks and silt fence because it gives you double control because primarily it is continuous without the break point in the hay bales so that is just a thought that you might want to consider in place of the silt fence and hay bales preferred in the past.

Mr. Klein asked if there were any questions on erosion and sediment controls?

Commissioner T. Adamski asked: The silt socks you mentioned, are they filled with the mulch?

Mr. Klein replied: Yes. They are available in 2 forms. One is pre-filled in lengths and despite our specification not to use those because they are really not anymore effective than hay bales in 10 foot long lengths with fewer joints but the joints are really where the problem is. Then you have the continuous barrier.

Commissioner T. Adamski stated: The other advantage of silt socks versus hay bales is hay bales tend to bring in invasive seeds.

Mr. Klein replied: Well, that's true. The other advantage is that hay bales really only last about 90 days. These silt socks last substantially longer and when they are done, you can just slit them and take out the mulch. It's not officially in the manual; it's a new development since 2002 but may be highly effective.

Chairman M. Herde asked: Is there kind of statement on the plan that the erosion control plan is the suggested plan and that it may not be adequate and that it just has to be updated as to whatever is necessary, especially regarding the size of the site? Sometimes you will put up the silt fence and it blows down and then a lot of times you have a contractor say well that's what's on the plan and it blew down, I put it back up but then it blew down again, is there any kind of statement on there that says, do whatever is necessary.

Mr. Bogardus replied: The storm water quality control is sort of an active thing to ensure its always looked at and the means of methods if how the contactor does the phasing and we have a role in that process and a discussion in the process because things change, weather events change throughout the construction. So yes, that's covered and the other advantage is there is not a third party involved here, because Haynes is self developing and self performing a lot of this work, so the owner is in some ways the contractor, the responsible party and there is not as many pointing fingers.

Chairman M. Herde stated: There is a company developing condos right around the corner from here that has trouble with that, just want to point that out.

Mr. Bogardus stated: Understood.

Mr. Klein stated: So the other element that we are focused on is the water quality and treatment system and I know Kyle has gone over it and I just would like to add a couple of additional points. One of the discussions so far has been petroleum oil and grease and I can tell you about this with some degree of authority because I worked in the laboratory when this research was done back in the mid 70's. Long Island has a long history of using ground water re-charge basins to the area for surface water supply and one of the concerns that was raised as the re-charge basins were developed to replenish that, is that whether there would be enough water quality for re-charging runoff. My colleague and I, what we found was that the oil types all tend to migrate downward with unconsolidated materials. So when you have a treatment system that include rain gardens and storm water basins, bio retention basins, they tend to very effectively remove the minor amounts of controlled run off from parking lots. I know in a development like this, in my opinion, the only thing I can see is an oil separator being used for is automotive runoff, loading docks, trucks for an extended period of time with operations such as lift gates and so forth but in general, I don't think its really required. One thing of the Commission does require it throughout what might be considered is the use of snouts or elbows products which would go below the surface to catch incidental oils before reaching into the catch basins. Swirl concentrators would do the same thing which can be an additional measure that you might consider.

Chairman M. Herde asked: Do you know if the swirl concentrators can emulsify it and make it finer so that it travels at multi levels in the water?

Mr. Klein replied: I don't believe that is correct. They are designed to remove sediment.

Chairman M. Herde stated: Our training from D.E.E.P. has primarily told us that they are designed for particulates not for floatable petro chemicals.

Mr. Klein stated: The other elements that I wanted to reinforce is the rain gardens and water quality basins are included into your soil medium. There were concerns about sand accumulating and interestingly enough we add sand to top soil because the biggest problem with rain gardens is they tend to clog up from too much fines, not from too much sand and actually the sand allows them to drain better. While there is certainly is maintenance as Kyle mentioned just like there is with a more conventional system, accumulation of a certain amount of sand, although most of it comes out of the catch basins and that engineered soil medium does provide treatment in a variety of ways. On page 7 of my report, there were a series of recommendations and I pretty much talked you through them earlier.

Mr. Klein stated: To remove the very fine particles to provide a 25 foot offset to the proposed tow of the slope to the wetland in the southeast corner and you vegetate that area with native species and provide a site monitor for the owner and the wetland commission and your staff these recommendations which in my judgment our a prudent addition to the plans. In summary the wetlands on the site are highly modified and they have all been reviewed in the past by this Commission and approved for filling and eliminating those wetlands that were created as part of the quarry operation. The proposal had no direct adverse impact on wetlands or a watercourse. We have made several recommendations to improve the performance of the erosion and sediment controls and storm water

management system. There is no question there is strict oversight and limitations that are necessary and appropriate and are included in the plan and implemented as recommended for protection of resources and are also consistent with the recommendations of the Southwest Conservation District. I would be happy to answer any other questions.

Chairman M. Herde stated: I have one question that probably has an awful lot of variables in it and it will sound a little bit inconclusive.

Chairman M. Herde asked: I think you said the storm water management system was designed roughly for the 10 year storm with 0 or reduced runoff with temperature changes in the water, we talked a little bit about there wasn't going to be any temperature change. Is there a certain level storm on a summer day that we can start getting temp changes? Does this sound absurd?

Mr. Klein replied: Well, it's not an absurd question at all. The storm on a summer day we would be worried about is a 1 inch or 1/2 inch thunderstorm that is just enough to wash off and cool off the surfaces, basically the water quality volume and that's contained within underground system.

Chairman M. Herde asked: Ok, so you're saying when it goes up to the 25 year storm, there is enough water that is going to deal with the temperature of the asphalt?

Mr. Klein replied: That's correct. And there is more flow in stream and so that is the solution I guess. The concern is really those short term, high intensity storms.

Mr. Klein stated: Given the sensitivity of the downstream resources of the Little River in terms of the cold water fish habitat, we were a little surprised of the recommendation from the Southwest Conservation District in utilizing somehow to get the water back up hill in the basin on the Echo Valley Road subdivision and using more open surface ponds on that site. There are some problems for which those kinds of solutions might be appropriate but in this case I think the data is quite clear that those are probably the worse solutions in terms of protection of cold water fish habitat.

Chairman M. Herde asked: My other questions are probably general statements for the plan. Fuel usage, fuel storage, is this all on natural gas, is there any other storage there, is there hazardous materials statement on the plan? I know you don't know who all of your tenants are but starting in the generic stage we should have some sort of a hazardous statement in general so that we have a benchmark as each store fills up.

Mr. Bogardus replied: Natural gas is the elective. There will likely be oil for the grocery store emergency generators.

Chairman M. Herde stated: We will need details on any kind of fuel usage or storage. Protection of the tank, where is it going, underground, above ground. We need a statement on there that there is no fuel on the site and it's a re-application for the future. One thing we have not talked about is the trash area. Is there any potential for a restaurant here, or cooking at the grocery store, is there going to be a grease containment area for a removal from the site and how is that going to be addressed when it overflows or spills going into the truck?

Mr. Bogardus replied: There will be some food production inside the grocery store. There is an underground, exterior grease trap and internal traps. As the uses get finalized we will certainly address these.

Chairman M. Herde stated: Even in the fish departments, there can be deep fryers; there will be the need for oil removal. We will need a statement as to who, what and where and this has been typical on all commercial sites we require this right up front. Also with dumpsters and trash compactors, there is a lot of run off, oils that should be going into something and needs to be contained as well as the hydraulics on the dumpsters.

Mr. Bogardus replied: ok.

Chairman M. Herde asked: In your D.E.E.P permit, you said you had a commercial site, basically a tractor cleanup maintenance program and such and is that included in the information as part of the application?

Mr. Bogardus replied: Its not. It's more for when we register for the operational permit.

Chairman M. Herde replied: Oxford has a very simple form with our wetlands application, a simple statement of litter control that goes on all commercial site plans and if you can include that and conform with usual system.

Chairman M. Herde asked if anyone else has questions.

Mr. Galligan asked: You talked about the flocculent treatment for the cords and suspensions, how do you get the mix in there?

Mr. Klein replied: Good question. Their proprietary blend would be in a blender and they do a very simple jar test and identify the product that is most effective for the particular soils on the site. There are a number of ways they can be applied, what we propose here is logs; basically build a giant bar of soap, on a rope, literally. They get staked in the swales and I prefer that is what we propose. They can also be hung in the outlet control structures.

Mr. Galligan asked: The routine removal system we talked about, the underground system itself doesn't have any real value in routine removal, is that correct?

Mr. Klein replied: Yes.

Mr. Galligan continued: Ok, I just want to make sure. This Commission has had a couple of applications where they have had a lot of bio swales layouts and this here doesn't have as vast as bio swales as seen in the past. Is this adequate and rain garden system for this big of an area?

Mr. Klein replied: Yes, absolutely. There are a variety of measures, several different measures of treatment trains.

Mr. Galligan stated: Thank you.

Chairman M. Herde asked if there is a motion for a 15 minute recess.

**MOTION** for 15 minute recess at 8:47 pm made by **Commissioner Tom Adamski** and seconded by **Commissioner Bill Richter**. All in favor **4-0**.

**The recording devices were not audible and apparently malfunctioned and the conversations were not audible.**

**MOTION** to go back into the public hearing at 9:04 pm made by **Commissioner Bill Richter** and seconded by **Commissioner Ethan Stewart**. All in favor **4-0**.

Chairman M. Herde asked if anyone had anymore questions then we should now open it up to the public.

There were no further questions.

**COMMENTS & QUESTIONS FROM THE PUBLIC:**

Chairman M. Herde asked if there is anyone in the Public who would like to address the applicant and/or the Commission and once again, please sign in and state your name and address and this is only to ensure that everyone gets a chance to speak.

Tony Mondino of 24 Highland Rd, Oxford, CT introduced himself and stated that he has been a resident for 20 years and states he thought we do need a grocery store and retail but did have concerns with regard the gas station, oil from the delivery trucks and removal of snow in the parking areas. Mr. Mondino also stated: As far as the residential units, let's just call this what it is, low income housing.

Chairman M. Herde thanked him.

Chairman M. Herde stated: We have addressed already questions regarding impervious surfaces and oil containment and pavers in yards. If I can remind everyone to keep the questions and statement with regard to wetlands and watercourses only.

Mr. George Garofolo of 6 Old State Rd, Oxford, CT. stated: I live on the Little River and have significant concerns with regard to the runoff. I already get flooded with 1 inch of rain an hour, now what is going to happen with this project and all the water running off the parking areas. Its about 8000 gallons of runoff that will flood my basement. I also have a very shallow well.

Mike Briggs, 12 Dorman Road, Oxford, CT asked: How many acres are under the black top? I also have concerns regarding runoff and the capacity of galleys. Water seeping through sand and stone and leeching into our wells in the area. What is the height distance of the Rte 67 rock drop off?

Tom Kelly – 11 Seth Den Road, Oxford, CT. asked: I'm concerned about the water runoff on Echo Valley and I also noticed how close the stream or pond will be and flooding concerns and what impact will it have on environment/nature. How are you going to manage the water flow and monitor what's in it? I would also like to see more public information on how things are being taking care of and how it's being managed, where its being mitigated and what's going to be addressed and have this available for the public to see what's going on.

Attorney Thomas replied: I would just like to address Mr. Kelly's comments and state that all information here is subject to the Freedom Of Information Act and if anyone is interested in the information for this project can request it from the Wetlands Commission.

Mr. Bogardus stated: There will be someone over seeing the project during the construction and the long term storm water plan will be at the back end of the phase. Low points would be created to handle storm water run-off which would be caught in catchment areas or catch basins. The run off would then be collected in the underground piping network and of course then managed by the infiltration systems. As far as the questions regarding the snow, this will be a stock pile in an area well enough to handle the melting snow which would then go into the drainage system. Elevation for the Rte 67 drop off is 304 and 291 for the entrance way. Catch basins will be monitored in pre-construction and post construction. The black top surfaces or impervious surfaces are total of 20 acres. Water volumes collectively will be about 110,000 cubic feet.

Chairman M. Herde asked: How many chambers?

Mr. Bogardus replied: They can vary, 182 or 200.

Mr. Galligan asked: How much water goes in each direction, underground storage area?

Mr. Bogardus replied: (inaudible) The area acts as a collector.

Mr. George Garofolo of 6 Old State Rd, Oxford, CT stated: If my basement fills up from this amount, I'm done.

Chairman M. Herde asked if we could calculate the water by cubic feet per minute.

Mr. George Garofolo of 6 Old State Rd, Oxford, CT stated: My system would fail. I live on the Little River, what is the peak rate?

Mr. Bogardus stated: There is a management plan and a maintenance plan for total area. We analyzed all the storms up to and including the 100 year storm.

Chairman M. Herde stated: One other point. In the winter, these systems work better than conventional pipe systems as they do not freeze up. They are not as efficient in the summer.

Attorney Thomas stated: I would like to say there is no adverse impact on the wetlands or watercourse and we will address the drainage issues.

Chairman M. Herde asked if there is anyone in the Public who would like to address the applicant and/or the Commission. None Stated.

**ADDITIONAL COMMENTS & QUESTIONS FROM APPLICANT/APPLICANTS'**  
**REPRESENTATIVE(S):**

Chairman M. Herde asked the applicant/applicants' representative(s) if they had any other questions, comments, or issues that should be addressed.

None stated.

**COMMENTS & QUESTIONS FROM THE CHAIRMAN & OTHER COMMISSION MEMBERS:**

Chairman M. Herde asked the Commission if they had any other questions, comments, or issues that should be addressed.

None stated.

Chairman M. Herde asked if there is any reason to extend the public hearing.

None stated.

Chairman M. Herde stated: We have 35 days after the close of the hearing to consider this project and vote.

Chairman M. Herde then asked for a motion to close the public hearing.

**OTHER:**

**MOTION** made by **Commissioner Bill Richter** and seconded by **Commissioner Tom Adamski** to **CLOSE** the Public Hearing at 9:35 PM. **Voted 4-0.**



Respectfully Submitted,



Denise Randall  
OCCIWA Secretary

14 AUG - 1 PM 2:40  
TOWN OF GARDNER, CT  
*Margaret A. West*  
TOWN CLERK