



**LEESBURG BOARD OF ARCHITECTURAL REVIEW
SPECIAL MEETING MINUTES**

**Wednesday, 25 March, 2015
Town Hall, 25 West Market Street
Council Chamber**

MEMBERS PRESENT: Chairman Edward Kiley, Vice Chairman Reimers, Mark Malloy, Dieter Meyer, Dale Goodson, Teresa Minchew arrived at 7:08 pm, Town Council Representative Suzanne Fox

MEMBERS ABSENT: Theresa Minchew, Richard Koochagian

STAFF: Director Plan Review Bill Ackman, Attorney Liz Whiting, Preservation Planner Tom Scofield and Planning & Zoning Assistant Deborah Parry

Call to Order and Roll Call

Chairman Kiley called the meeting to order at 7:04pm, noted attendance and determined that a quorum was present.

Adoption of the Meeting Agenda

On a motion by Mr. Reimer seconded by Mr. Goodson the meeting agenda was adopted by a 5-0-2 vote (Koochagian and Minchew absent).

BAR Member Disclosures:

None

Special Work Session – Stormwater Management Concerns with the proposed Loudoun County New District Courthouse Construction

- a. **TLHP—0115, 112 Edwards Ferry Road NE – PUBLIC HEARING OPEN**
Project Description: Demolish contributing building for courthouse expansion
- b. **TLHP-2014-0116, 110 Edwards Ferry Road NE – PUBLIC HEARING OPEN**
Project Description: Demolish contributing building for courthouse expansion
- c. **TLHP-2014-0117, 108 Edwards Ferry Road NE - PUBLIC HEARING OPEN**
Project Description: Demolish contributing building for courthouse expansion
- d. **TLHP-2014-0118, 106 Edwards Ferry Road NE - PUBLIC HEARING OPEN**
Project Description: Demolish contributing building for courthouse expansion

Chairman Kiley noted this is a special work session regarding the four applications by the County for demolishing four buildings on Edwards Ferry Road and the issue tonight is the stormwater management concern.

Mr. Scofield stated the purpose of the meeting tonight is to discuss items that have been researched and what has been investigated to date regarding stormwater management on the New District Courthouse site. He stated a summary of related issues currently under investigation will also be provided. He noted that resolution on this issue will require additional research to be accomplished by Dewberry with direction on certain questions provided by Town staff. Further, he outlined the discussion topics for this meeting.

Peter Hargreaves, Loudoun County project manager for the General District Courts project thanked the Board for meeting with the design team tonight. He stated this discussion will include detailed information regarding the stormwater management issues for the proposed courthouse site as well as investigations undertaken which have influenced the decision making process. Further, he provided information regarding the path moving forward for the project stated the design team is looking forward to open dialog and communication with the Board as work on these applications continue.

Bill Fissell, civil engineer with Dewberry, Inc. stated the brief outline that Tom provided to you and is to talk about the stormwater management, what we've done to date, what was done in the past, where we are today. He stated this is an ongoing interim design process and he is working very closely with staff, including Plan Review Director Bill Ackman. He outlined the proposed courthouse site as well as the Semone's lot and Pennington lot, noting some of the options on the courthouse site actually impact the Pennington lot. He stated stormwater management, including quality controls and includes adequate outfall both quantity to peak flow and now since July 2014 includes volume controls. He stated that equates to what's called adequate outfall downstream issues and there is also a flood control component based on the new stormwater management regulations that we have to figure into stormwater management. He stated there is also the issue of quality which is commonly known as BMPs Best Management Practices and stormwater conveyance systems, so when we talk about stormwater management it will include all three of those elements. He provided a base map to show the two vaults noting this work was done based on a premise that those four houses were to be demolished. He stated on March 4th he was authorized by the Board of Supervisors to study the stormwater management including the site and the impacts of saving the houses. Further, he outlined storm sewer outfall which goes between the County Government Center and the parking garage, its Town branch goes down through Market Station and joins Tuscarora Creek half mile downstream or so.

Marlene Shade, Dewberry, Inc. clarified the outfall is actually an 8 foot wide by 5 foot high concrete tube.

Mr. Fissell stated it's a series of different stormwater conveyances, some of it is very old and some of it has been replaced resulting in a mixed bag of different sized pipes. He stated the drainage shed is a little over 100 acres behind these houses on Edwards Ferry Road and in this area it's approaching 130 acres of drainage. He stated the design team has been working to analyze the storm sewer system through here to determine how adequate it is and what we are finding is that portions, especially in this area, where this site drains to, all the pipes are flowing full, under pressure, and that's in what's called the 10 year event. He stated what that means is at the 10 year storm it will overflow and if we put a pipe into that, and that pipe is flat, which it is a very flat area in there, it's just going to fill up with water so that influences elevations of where we can put stormwater management down in this area and what type of storm devices we can put there. He stated another constraint is the area proposed for the tunnel is at the location where the main sewer connections run, so the plan is to abandoning that strip of sewer, putting a manhole here, letting that keep flow, while picking up a lateral and tying it back into sewer. He stated that will allow the opening to the tunnel to go through. He stated there are also other utility conflicts where water lines and gas lines will need to be moved.

Mr. Fissell outlined the location of the water connections to the building at Edwards Ferry Road to a brand new waterline. He stated there have been discussions with Verizon and Dominion Power regarding the possibility of undergrounding some utility poles; however, that has not yet been finalized. He stated soils and geotechnical report revealed limestone conglomerate under here and at different elevations which in relation to stormwater management means infiltration type devices should not be used, the water should not be put underground nor should it infiltrate into the ground because that just creates problems with the limestone conglomerate. Further, he stated this eliminates some types of stormwater management we can use.

Ms. Shade provided additional information regarding the overhead utility lines proposed to be underground along Church Street. She stated the physics to remove the pole is going to be a challenge because the wires will have to be supported in all the directions they travel.

Mr. Fissell discussed the stormwater calculations and stated decisions have to be made by the Town in conjunction with the engineering which influences where we put stormwater management and how that works. He stated if you look at stormwater quantity there's requirements, these are new requirements that came into effect last year having to do with erosion downstream. He stated if you discharge your stormwater into a natural channel you actually use what's called an energy balance requirement, which is a new formula used to provide excess stormwater management and storage needed to protect that natural channel. He stated this site does not meet the 1% criteria until it hits Tuscarora Creek, so Town staff has determined that it is not natural channel which helps with the stormwater management to vault the amount of volume we would have to detain.

Bill Ackman, Director of Plan Review, stated it was not viewed as a natural channel because the entire Town branch was man made many years ago and the question came up can the channel re-naturalize itself. He stated if you go back through the DEQ criteria and do constant maintenance on that channel then it is not considered a natural channel and it hasn't put itself back in a natural situation. He stated over the years the Town has had to go in and do improvements to Town Branch so it is now deemed a man-made channel and not a natural channel as determined by himself along with the Director of Public Works and the Director of Capital Projects.

Mr. Fissell stated that is good news as far as volume of stormwater management that you have to hold back.

Chairman Kiley asked if there is any plan on the books to increase the capacity of the Town branch stormwater system.

Mr. Ackman stated there were no plans to his knowledge.

Mr. Fissell stated he has also had conversations with staff regarding the increase in impervious area. He stated we know how much impervious area is proposed here and up on North Pennington and stated the requirements will be based on the amount of impervious surface today versus the previously approved site plan.

Mr. Ackman stated if you were to build that site plan today, the one that is previously approved, you could do that; however, because we're doing something different, the new State regulations come into play.

Mr. Fissell discussed stormwater management requirements for the 1 year, 2 year, 10 year and 25 year storm events. He stated some of the requirements are based on the DCSM, some are based on old DCSM and the new state criteria. He stated the Town will be requiring detention for the 25 year storm but only for the increment of increased imperviousness, not as low as a brand new site, which is consistent with State regulations and the normal practice but we wanted to get that confirmed. He stated by keeping the four houses you're increasing the amount of imperviousness over what's there today, but not very much. He stated it's only the roof tops of those four homes and it looks like the amount of storage we're going to have to provide will only be an incremental difference of what's out there today. Further, he stated that same analysis will apply to the 10 year storm.

Mr. Goodson stated the pervious versus non-pervious surface is obviously roof top, but parking lots have a lot of non-pervious surfaces and asked about alternate surface materials to convert non-pervious to pervious.

Mr. Fissell stated that was looked at in terms of quality control; however, it's something we generally don't like to put in travel ways but he has used it in the parking spaces in the past where you don't have as much travel. He stated in terms of quantity, it is the Town's practice that if you can't provide storm water management on your site you can provide it somewhere else, which is called over detainment. He stated The Town has agreed that they can over detain on the Pennington lot to make up for the volume and the quantity on this lot. He stated the only issue we have is that the stormwater management we were providing was for the new garage so now we have to figure out how to get more water into our stormwater management that drains off the garage in order to compensate for that. He stated it may be possible to put a storm sewer system in part of the parking lot and direct it into the stormwater management area or the vault or whatever we have.

Chairman Kiley asked when referring to compensation whether Mr. Fissell is talking about compensating for one vault or two vaults.

Mr. Fissell stated when we talk quantity that's one of those vaults. He stated one vault is for quality and the other is for quantity. He stated if we can over detain on the Pennington lot and figure out how to get more water into our stormwater management up here, that concept that would eliminate a vault.

Mr. Goodson stated we believe that's the entire system not just for saving those four houses.

Mr. Fissell stated we looked into the option because of the pressure flow and the water; however, to make that work because we have to keep it high enough that all this water that's coming down through here doesn't back up in or we don't get any detention in that case. He stated it is not an easy thing where you just assume that there are two more acres flowing there, because there isn't two acres naturally flowing that way that we can intercept. He stated we're not going to intercept the hundred and some acres coming here as that would be impossible. He stated part of the conclusion is the preferred route would be if we could over detain on the Pennington lot, which would eliminate a vault near the houses or another device we have for water quantity. He stated we still have to get water off the building into the storm sewer system in here, but it's not vaults. He stated they will use a private storm sewer system which gives us more flexibility in pipe depth, pipe material and access requirements. He stated the question of how to get the stormwater into the system from both sides of the building remains and some of that is influenced by which way we are able to take the roof water, whether it is divided half and half or diverted to front or the south or to the north.

Chairman Kiley asked if Mr. Fissell is talking about a gutter and downspout issue here or something more than that.

Ms. Shade stated they will use interior drains versus gutters and downspouts.

Mr. Fissell stated the roof flow needs to get outside the building somehow, which goes into water quality. He stated one thing I mentioned the last time he was here was the option to put it in a vault with a sand filter. He stated in his experience it works to get the pollutant loadings out most effectively and is the easiest to maintain. He stated new stormwater management regulations were adopted in July which provided the ability to buy BMP credits. He stated at the time, you were only allowed to buy 25% of your site, and that was reserved for people who couldn't fit your whole stormwater management on the site. He stated new requirements have made it very difficult as it has now been determined that any site less than five acres can buy 100% of their credits. He stated this is a redevelopment site and based on that you don't have to provide the full stormwater BMPs as you would if it were a greenfield site. He stated BMP credit prices are based on phosphorous that the site generates and the going rate to buy, at the current banks, ranges from \$17,000 to \$25,000.

Mr. Ackman stated he received an update today that the price is now \$25,000 to \$30,000 per pound of phosphorous.

Ms. Minchew verified that is a one-time fee.

Mr. Fissell stated the cost of this site is one pound of phosphorous. He stated he stated once complete, the site engineering will be forwarded to DEQ and they have to agree that it is one pound of phosphorous before you purchase it. He stated he is hopeful that program is still in effect when they get to the site plan on this, and there are BMP credits out there. Further, he stated it's a bit of a risk, but by buying the credit you eliminate the upstream vault.

Chairman Kiley verified if the upstream vault is eliminated, the downstream vault can be moved higher.

Mr. Fissell cautioned that the plan will have to be confirmed and we hopefully the credits available when the site plan goes through.

Mr. Malloy asked if all the pieces fall into place, how much would be saved by not building those two vaults.

Mr. Fissell stated it potentially saves us one vault minus the cost of buying the BMP credit. He stated extra storm water will need to be added in another location so it's not a direct savings but it is a savings.

Vice Chairman Reimers confirmed all this water that's coming down here right now is not currently being treated for quality.

Mr. Ackman stated our position as staff is that it meets the minimum criteria of the State so it's doable. He stated if you look at the environmental impact of it, everybody will have a different view; however, he believes Mr. Fissell has done a pretty good job. He stated this area is just under two acres; however, when you get down to Tuscarora the confluence of Tuscarora and Town Branch it is well over a thousand acres. He stated if you try to treat an acre or two, by the time you get down to Tuscarora which goes to Goose Creek which goes to the Bay it's literally a grain of sand on a beach in water quality. He stated he would have a much different opinion if it were a larger site.

Vice Chairman Reimers verified the BMP credit could not be purchased now.

Chairman Kiley asked how long the process takes to purchase the credits.

Mr. Fissell stated that's a normal part of the site plan process as when we submit the site plan to the Town, we're going to tell them that we plan to purchase credits. He stated the Town will review the plan, confirm the phosphorous and then we will make our application.

Chairman Kiley asked if the plan could be verified prior to the critical action date of May 18.

Mr. Fissell stated he is uncertain.

Mr. Malloy stated the location of the vault will not affect the four houses regardless.

Mr. Fissell outlined the location of the storm sewer as it will travel from the Pennington Lot to the site. He stated what we are looking at doing is actually to open it up which would allow us to do is allow the water to enter the system earlier in larger storm events. He stated because of the peak, when we have a storm you get the rain over the whole area and it starts up with a little bit of flooding and then it peaks and that peak kind of runs through the pipe system. He stated it takes a while, and being 100 some acres it takes about thirty minutes for the peak to hit here, so if we can get that 100 year event into that pipe system and down there, it won't add to the peak and actually can make the whole pipe system more efficient.

Council Member Fox asked if having a culvert at that location would pose a safety concern for the children in the area.

Mr Fissell stated rails or other protection can be installed.

Mr. Reimers asked how this would differ from the open pipe that's down near Market Station.

Mr. Fissell stated there are looking at two different schemes. He stated the first would be to have an opening to the sky to collect some of this parking lot water and get it into that vault. He stated this would be a custom design and more information is needed to determine whether it would work. He stated the other option is to go back to our other vault and maybe an additional vault which would be connected instead of trying to over complicate in another area.

Chairman Kiley asked if this would be a revenue neutral issue.

Mr. Fissell stated he is uncertain at this point. He stated if we can buy the BMP credits, it would be less expensive than buying the vault; however, that is up to the Board of Supervisors.

Mr. Malloy stated the other point is the quantity that we're adding to the vault up in the parking garage is only for the four houses, so you can imagine the vault size. He stated to build an independent vault down there would cost you \$80,000 to \$100,000.

Mr. Fissell stated that will have to be confirmed by the Town.

Mr. Ackman stated the process has not proceeded to that point yet. He stated it's a design issue and we have to look at the capacity of the pipes.

Chairman Kiley stated for our purposes, what we're being told tonight is that there are definite alternatives to placing at least this vault and perhaps two vaults where these plans say they are going to be placed. He stated there appear to be cost effective alternatives to doing that.

Mr. Hargreaves stated there are other issues related to that side of the site, including the sewer lateral.

Mr. Fissell stated the sewer lateral right now is seen going through one house because we were assuming demolition. He stated we have to get a sewer lateral somewhere through here out to that sewer line.

Mr. Hargreaves asked when the plans will be submitted.

Mr. Fissell stated staff has agreed that we can submit the site plan during the zoning process as a sketch plan review, not a formal submission. He stated that will include 75% to 80% pipe drawings. He stated final approval cannot be granted until the zoning is approved. He stated the impression is that the Town is willing to do a preliminary review of it; however, nothing is certain until the site plan is approved by the Town.

Mr. Ackman stated he is aware of a VDOT project where they are purchasing credits and there might be a State contract that the County to make use of.

Vice Chairman Reimers stated it seems that the storm water issues look clearer now than they did a couple of weeks ago.

There was further discussion regarding a preference of the Board to have more clarity on the storm water issues prior to May 18th.

Mr. Hargreaves stated this has been a very productive special meeting and thanked the Board for their time.

There was further discussion regarding the next scheduled special meeting on April 13th regarding building design. It was the desire of the Board to focus on style, scale, massing, fenestration and analysis regarding which rear portions of the four structures could be removed.

Adjournment: The meeting was adjourned at 8:26 p.m.

Edward Kiley, Chair

Deborah E. Parry, Planning & Zoning Assistant