

**REVISED**  
**INLAND AND WETLANDS COMMISSION**  
**SPECIAL MEETING**  
**PROPERTY LOCATED AT MOUNTVIEW PLAZA, RUBBER AVENUE**  
**AND LONG MEADOW BROOK POND**  
**APPLICANT: MANCINONE REALTY, LLC**  
**July 21, 2011**

Commission Chair Mary Davis called this meeting to order at 6:00 P.M. with the following in attendance:

**MEMBERS:**

Mary Davis, Chair  
Joseph Bakstis, Vice Chair, absent  
Sally MacKenzie, Secretary  
Lars Johnson, Alternate, absent  
Marcia Puc  
Alex Olbrys

**OTHER:**

Keith Rosenfeld, Town Planner, WEO  
Wayne Zirolli, Borough Engineer  
Sue Goggin, secretary  
Public, 4

1. Commissioner Davis took attendance and noted there was a quorum.

2. **OLD BUSINESS**

A. Commission discussion/decision regarding the rehabilitation of the culvert located at Mountview Plaza, Rubber Avenue and Long Meadow Pond Brook (IW #11-02) Applicant: Mancinone Realty, LLC

Attorney Pasquale Salvatore thanked the commission and gave a brief history of the culvert damage to the new commissioners. He listed the factors which contributed to the failure of the culvert as follows:

1. The culvert dropped four feet.
2. A proper base was either not installed properly or deteriorated over time.
3. Debris such as large boulders which kinked the pipe resulted in decreased water-flow.
4. The bubble which formed in the bottom of the pipe also contributed to the decrease in water-flow.

Attorney Salvatore said he thinks they have a plan that will satisfy all. Terry Meyers, engineer and land surveyor, said he worked with Wayne Zirolli and Jim Stewart over the past couple of weeks to remedy the situation. The plan all along has been to utilize the old culvert and increase overall capacity by adding a new culvert beside the old one. The new plan allows for installation of the new culvert and the rehabilitation of the existing culvert and also raise the driveway. Roman had a concern with the amount of freeboard above the pipe. Raising the grade of the driveway would accomplish several things. It would soften the grade coming out of the drive-thru. You create a berm from the drive-thru to Rubber Avenue which raises the grade to where there is three feet of space over the top of the pipe. This

means that you are almost creating a headwall effect by raising the grade. This can handle any additional water flow and offers two means of getting water through in the event of a heavy storm and this will also decrease the velocity of the water and therefore decrease the risk of scour.

A discussion ensued regarding paving the bottom of the old culvert. Terry said that once that is done, it would result in a smoother flow of water, as opposed to the current ribbed bottom. Never having been paved, this caused additional turbulence. Mary commented that the commissioners hadn't had a chance to read Wayne's report yet. Wayne explained his report, stating that ultimately rehabbing the pipe makes the most sense. Mary asked if the fish living in the old pipe would be able to get through the new pipe as well. Wayne said yes they will be able to go through both pipes. Mary didn't understand why they didn't just put in a bigger pipe and a headwall and they would have been done. As far as using the old pipe, Mary said that obviously there were problems with the old pipe, because there were other pipes installed above it. Wayne said that there was much build up in that area, increasing the runoff at an increased velocity. He said that the pipe is almost as pristine as when it was new, but for the bottom. It may last another 40 or 50 years. The new pipe is necessary, but enables them to take advantage of the culvert still in place, utilize it, rehab it and obtain double the capacity of the culvert as it exists now for a minimal increase in cost, as opposed to installing a box culvert or a free standing bridge. Mary said they didn't ask for a bridge. She would have liked a new bigger pipe, a headwall and rip rap and they could have been working on this and had it done now. She didn't know the cost, but it couldn't have been that much more. The commission doesn't want to cause undue hardship for the plaza owner, but it's got to be fixed and for the little extra expense involved, she thought they would want to do it right. Wayne said it would be very expensive. He was confident that utilizing both culverts will be a win/win situation. He also stated that pulling out the old culvert would cause more of a disturbance to the stream. Terry explained that the integrity of the culvert is still there and that the cost would be almost double to install a box culvert with a headwall. He also felt that digging out for the headwall would be detrimental to the stream and also that there is not enough room. The repairs to the old pipe are easy to fix. Marcia Puc asked how the ground sank in on the pipe. Terry explained that the ground didn't sink in, but washed away when the culvert became blocked. Alex asked if raising the pavement would help during a 100 year storm. Terry said that there was a concern by Roman that there wasn't enough freeboard and that raising the grade by 3 feet would help to keep the water within the confines. Sally said she liked the idea of using two pipes but doesn't understand how it won't happen again without a headwall. Terry explained that they would embed large boulders into the bank and on top of the pipe so that the water has to go into the pipes and also that there is going to be twice the opening that was there before. Wayne said that it wasn't the fact that there was no headwall, but there was undermining of the original pipe and the inlet dropped, and over time the bottom of the pipe rusted out, which enabled the pipe to drop and buckle up. Then during one or more storms, a large boulder and a tree trunk went into the pipe causing a blockage, backing up and overflowing the water which went over the roadway, washing out the pavement and basically caused a flooding situation. With the larger rip rap and the entrance sloped at a 45 degree angle, along with the entrance to the pipe sloped, you have what's called improved entrance conditions for the pipe. Water will be able to flow into the pipe easier. The slope that was

approved for Fulling Mills Commons had a rip rap slope and had similar flows to Long Meadow Brook, so it's not necessary that a concrete headwall be specified. Mary asked if Fulling Mills has the same velocity as Long Meadow. Wayne said it's little higher at Long Meadow Brook than at Fulling Mills Brook. Terry said that with the additional culvert, it provides for a straighter path for the brook. Marcia asked if the brook is ever inspected to see if the pipe is clogged. Wayne replied that they are trying to get a handle on all the drainage issues in town. He has been advocating the public to be more aware of the drainage issues. Marcia asked who is responsible for clearing debris, the property owners or the town and will it flood again if the culvert gets blocked. Attorney Salvatore stated that the property owner is a big tax contributor to the town and that she has tried to comply with the commissions recommendations. He also said that timing is an issue because some of the utilities are exposed. Mary replied that she thought she was going to see more tonight and that she is not pleased. She wanted to see a headwall. She said that initially the contractor said he would just tar the bottom of the pipe, which he denied saying. Then, Mary said, we went to the next step, which is a little better, but all along she wanted a bigger pipe and a headwall. Terry explained that they can't use a bigger pipe because it won't fit and that a box culvert would cost \$300,000 and they can't afford that. It is going to cost \$140,000 to rehabilitate the culvert, which includes putting in the new pipe, fixing the old pipe, fixing the driveway, raising the grades, putting in the berm and installing the boulder rip rap. Mary replied that it is not a lot of money considering the roadway washed away. Wayne said that 90% of the pipe is fine, only the bottom needs to be rehabilitated. With rehabbing the old pipe and adding a new slightly larger pipe, you are virtually almost doubling the capacity of the culvert. If we doubled the size of the pipe you would not get double the capacity. This is a very adequate solution. Wayne can't see the need for the headwall when properly sized rip rap will do the job. Sally asked if there was any berm or lip next to the drive-thru to stop the fluids from going into the brook. Terry answered that was why they proposed raising the grade and embedding very large stones into the walls of the bank. A discussion ensues regarding the use of gabions instead of rip rap. Terry felt that gabions are better used for steep walls and that in this situation, the boulders and rip rap would work better. Mary asked if rip rap were used in place of a headwall, what size would work best. Wayne and Terry were both in agreement that 2-3 foot diameter rip rap would work best. Mary asked where the big stone came from that's on top of the pipe. Mr. Pope said that they think the small stone under it moved and shifted the larger stone. Mary said she doesn't want to see that happen again. Terry explained that the process that would be used is called slope paving. They would be using a machine to embed the rocks instead of by hand. Sally remarked that the other bridge has trees, etc growing out of it. Mary asked if that's the town's responsibility to clean that out. Sally wanted to know what's to prevent trees from growing in between the boulders and whose responsibility it is. Mary replied that it's the property owner's responsibility. Terry said that maintenance needs to be done. Mary replied that maintenance wasn't done, so the plaza owners caused part of their problem by not maintaining it. Alex asked if there was any way to write a letter to the property owners asking them to please maintain their property. Mary responded that it is a good idea. Terry said that based on the FEMA study, these culverts will handle about 170% of a 100 year storm. That's almost double the capacity of the old pipe. Mary said that now they are at a standstill, short of the Army Corp of

Engineers to review this, but that would cause a delay. She asked what else can be done. Attorney Salvatore told the commission that this has been an eye opening.

Attorney Salvatore said he will explain the maintenance schedule to his client. Mary said that the commission tries to be very thorough. Sally commented that the trees upstream need to be removed so they will not cause a blockage again. Mary reviewed the map with Terry. Mary asked the commissioners if they want to work with this plan as it is. Sally felt comfortable. Mary asked Wayne if he was comfortable signing off on saying that the old culvert is repairable. He responded that except for the bottom the rest of the pipe is in very good condition. Terry explained the rehabilitation process. First they are going to remove the 5' boulder, then cut out the bubble and replace with a steel plate. Next, they would provide stone and concrete in the first 20 feet of the pipe to fill in where the culvert has dropped. Next would be to decide whether to pave with asphalt or use concrete. Mary asked which is better, not cheaper. Terry said that the pipe wasn't pave initially and that would have prevented the rusting of the bottom. Mary asked if concrete would be the ideal fix? Terry said probably. Mary responded that they should plan on putting in concrete. Terry said they will where it's rusted out. Mary said they want a maintenance schedule bi-annually and after large storms and a report submitted to the commission. Mary asked if the commission felt that they could vote on this. Marcia, Alex and Sally responded yes based on the reports from each of the engineers. Marcia wants some type of maintenance agreement on record. Wayne said it will be on the plans. Mary said that the commission feels justified in the delay, but unfortunately it's not good for the plaza owner or the bank. Is the berm on the plan? Terry said it is. Mary asked if everything is on there but the maintenance plan. The commission reviewed the plans. Wayne said a revision needs to be on the map for the rip rap to be between 24 and 36 inches. Mr. Pope said they will need a few smaller stones to fit in between the larger ones. Mary asked what percentage will be large. Mr. Pope answered 70%-80%. Mary asked if the commission had anything else to add. No one had anything to add.

**VOTED:** Unanimously on a motion by Sally MacKenzie, seconded by Alex Olbrys, to approve IW #11-02, for the reconstruction of the existing culvert located at Mountview Plaza, Rubber Avenue and Long Meadow Pond Brook with the following conditions:

1. A maintenance schedule, approved by the Borough Engineer, will be placed on the plan which requires a biannual inspection report to the Inland Wetlands Commission.
2. An inspection report to the Inland Wetlands Commission after large storms.
3. Size of the rip rap to be used shall be between 24 inches and 36 inches.

### **3. ADJOURNMENT**

**VOTED:** Unanimously on a motion by Sally MacKenzie and seconded by Marcia Puc to ADJOURN the meeting at 7:34 P.M.

Respectfully submitted

Sally MacKenzie, secretary/ sg