



TOWN OF SHREWSBURY
Richard D. Carney Municipal Office Building
100 Maple Avenue
Shrewsbury, Massachusetts 01545-5398

March 21, 2016

LOCATION: Selectmen's Room, Town Hall

MEMBERS PRESENT: Ron Rosen, Chair
Fred Confalone
Melvin Gordon
Dale Schaezke
Lisa Cossette, Associate Member

STAFF PRESENT: Matthew Sarcione, Assistant Town Planner

CONSULTANTS PRESENT: Atty. Paul Haverty, Blatman, Bobrowski, Mead & Taleran, LLC (40B)
Justine Carroll, Tata & Howard (Water Peer Review)
Kent Nichols, Weston & Sampson
Hillary Larcirignola, Weston & Sampson

Mr. Rosen opened the meeting at 7:00PM and reviewed the procedures.

Minutes:

The February 29, 2016 minutes were presented for approval.

VOTE TAKEN:

Motion: Mr. Gordon moved to approve the minutes. Mr. Schaezke seconded. Motion carried.

Minutes: The minutes of the February 29, 2016 meeting were unanimously approved.

Sign Bills:

Mr. Rosen announced the following bills:

- \$229.33 to *Telegram & Gazette* for February 29, 2016 legal notices.
- \$6,200.00 to Graves Engineering for drainage/hydrology peer review for Variances for 173 South St.
- \$6,622.20 to Graves Engineering for site plan peer review for Comprehensive Permit, 440 & 526 Hartford Tpke
- **Total = \$2,224.18**

VOTE TAKEN:

Motion: Mr. Schaezke moved to approve the bills. Mr. Gordon seconded. Motion carried.

Bills: The bills were unanimously approved and signed.

Mr. Rosen added that the peer review bills were paid for out of escrow accounts set up by the Town using each respective appellants' funds.

Hearing 1:**440 & 526 Hartford Tpke – Smart Growth Design, LLC****Comprehensive Permit – Construct a 280-unit, multi-family apartment community*****Cont'd from 12/14/15, 12/28/15, 1/25/16 & 2/29/16***

Mr. Rosen read the legal notice into the record. Other acting Board members included Mr. Confalone, Ms. Cossette (serving for Mr. George, who recused himself), Mr. Gordon, and Mr. Schaetzke.

Introductions

- Developer Fran Zarette, Smart Growth Design, LLC; Susan Hunnewell, Director of Water Engineering for Onsite Engineering; and engineer Jami Walsh, AECOM, were present. Owner Atty. Rod St. Pierre was in the audience.
- Mr. Zarette reminded the Board that the development has now been revised down to 248 units from the original 280 units (as applied for in their initial application). Phase 1 would have 156 units, and Phase 2 would have 92 units.

Water Presentation

- Ms. Hunnewell gave the water capacity presentation. She explained that based on the revised figure of 248 units, the estimated water demand for the development is 35,000 gallons per day (gpd). This includes the estimated sewer use of 141 gpd per unit.
- There are both static pressure and fire flow requirements. For static pressure, 60-80 pounds per square inch (psi) is average under normal operating conditions, and 35 psi is the minimum. For fire flow, 1,000 gallons per minute (gpm) at 20 psi. The following figures are based on hydrant flow tests conducted on February 3, 2016.
- Phase 1 connects on Stoney Hill Rd and Route 20 near the center of the frontage for Phase 1. There is an 8" main that loops around and through what would be the parking lot area. The high point is by Building 3. Shrewsbury has 3 water service areas, and Phase 1 is on the line between two of these service areas - a Low Service Area (LSA) and a Reduced High Service Area (RHSA). The fire flow requirement at the LSA was estimated to be at 801 gpm at 20 psi by Onsite Engineering and to be at 750 gpm at 20 psi by Tata & Howard.
- Phase 2 is only in the RHSA. There is also an 8" main that loops through the development. The high point is by Building 2. Both the static pressure and the fire flow requirements are met. For static pressure, they estimated 66 psi and the peer reviewers estimated 65 psi. For fire flow, they estimated 1,400 gpm at 20 psi, and the peer review estimated 1,200 gpm at 20 psi.
- Ms. Hunnewell had seen the peer review and commented that they were aware that Tata & Howard were concerned about the 141 gpd of estimated sewer flow and that they had some corrections they would recommend for the site plans showing the hydrant and valve locations.

Water Peer Review

- Ms. Carroll said that they agreed with Onsite's methodology. The main difference was the estimated lower fire flow. Their fire flow is lower due to data collected at one (1) selected location. During a fire event, 20 psi is recommended and 1,000 gpm might seem low. The Fire Engineer could help decide what is needed.
- There is also a vinyl-lined asbestos pipe. These are known to have issues, especially on a dead end pipe, to potentially leach into the water. The Town needs to maintain it by flushing it and testing it. They recommend replacing it sooner rather than later with the development's advent.

Board Questions Re: Water

- Ms. Cossette asked who would replace the pipe suggested to be replaced. No one was sure.
 - Mr. Zarette clarified that the testing is in parts per billion. It is constantly tested and so there should not be an issue. The issue with this type of pipe at a dead end is that it would remain stagnant if the maintenance were not done. But with half the subdivision on that line and with

it to become a through line instead, there would be no issue. These types of pipes came in in the 1960's to help deal with taste issues.

- Mr. Confalone asked if Shrewsbury's water came from two (2) different sources – Assabet and Blackstone?
 - Jeff Howland, the Town's engineer who was in the audience, answered that all Shrewsbury's water comes from the Blackstone.
 - Mr. Confalone followed with whether all Shrewsbury's sewer goes to Westboro. Yes.

Abutters Re: Water

- Peter Reilly, 19 Pheasant Hill Dr,
 - Asked for clarification on the different methodologies used in the calculations. He questioned the figures lower than the recommended 1,000 gpm at 20 psi. He also asked if the applicant was using the higher site area in order to meet the figures needed, rather than areas on the parcel that might fall below the minimum requirements.
 - Ms. Carroll said their figures vary from the Onsite Engineering's by only 50 gpm, which is minimal overall and still considered fairly close and accurate. Onsite used data from that area in the field, and they (Tata & Howard) used data from a slightly larger area. Their figure was about 750 gpm and Onsite's was about 800 gpm. Both are estimating flow for a currently non-existent hydrant, but even the hydraulic models they both use already factor in some error. The highest area on that site is in the lowest service area, so that area would give the lowest/minimum figures. Other areas on the site would actually show better pressures.
- Scott Payne, 70 Stoney Hill Rd,
 - Should they expect a change in water pressure or interruptions in service to their neighborhood?
 - Ms. Carroll said if there were changes planned for the entire system that supplies the larger neighborhood, they might. But in this case, there should be minimal daily impact.
 - If the sewer system is already close to capacity, is the water situation similar – is it also close to its capacity limit?
 - Ms. Carroll replied that their peer review did study this, but the Town is addressing it. This project would not be of major impact now. There are two tiers in a permit such as this: the 1st tier is when the water is taken out for use, and the 2nd tier is when it has to be proved that water is being replenished back into the basin. This development has planned for putting it back via its drainage system.
 - Ms. Carroll also commented that the Town had also made strides over the past 10 years with significant conservation efforts, such as replacing water meters, etc.
- Dale Martin, 6 Pheasant Hill Dr,
 - Admitted he had no frame of reference on the fire flow numbers supplied and asked if some perspective could be offered on what the numbers mean.
 - Ms. Carroll said that there is a whole fire engineering code based on insurance industry figures. It really depends on the particular building's proposed category/use, i.e., residential vs. commercial vs. what supplies might be stored inside and their flammability ratings, also whether the building already has sprinklers or not. So the gpm required, depending on the building, could be as high as 5,000 gpm in some cases.
 - He followed with when in the process could we expect to hear from the Town's fire personnel.
 - Mr. Haverty said that is usually at the end of the process once the Comprehensive Permit has been granted, but before the building permits have been issued. However, he said that the Fire Department could peer review it as part of the process.
 - He then asked if there were any known limiting factors for using this service area.

- Ms. Carroll said not with their proposal to add the second parallel main. If that were not proposed, there would be an alternate plan. Since the two (2) nearest service areas meet right near the middle of Route 20 where this site's frontage is, one gate could be opened and another shut. But it would result in higher pressure for the existing neighborhood. Some of the houses downhill would likely experience pressures above the recommended, perhaps as high as 30 psi.
- Mr. Haverty followed with should there be any issues then with installing the second main. No, it would just be part of the rest of the regular construction to be completed.
- Kalyan Krishnan, 35 Stoney Hill Rd,
 - On the main that needs flushing, would it have to be flushed/ inspected more frequently, and would that cause an additional cost to the Town to do this?
 - It is done pretty regularly, according to Mass DEP regulations, on the Yellow Freight property now. In future, they may need to flush it from a different location's hydrant to get the best flush, but there should be no additional cost for this to be done.

Sewer Presentation

- Ms. Walsh gave the sewer capacity presentation. Site plans were displayed. She explained that based on the recommended methodology standards of TR-16 PER, they conducted their study using Town documentation as well as that from other relevant engineering firms. They also conducted their own field survey/data collection. The most similar housing developments that they could gather data on were for the Avalon and Arbor communities. Field verification had to be done especially for three (3) sections of pipe for which there were inconclusive records. Waterman Design conducted the field research for them.
- The sewer infrastructure in this area is handled by the Quail Hollow, Stoney Hill, and Cherry Street pump stations. From Phase 1 to the Quail Hollow station, it is a gravity main; then a force main from Quail Hollow to the Stoney Hill station; then a gravity main from the Stoney Hill station to Phase 2.
- On the day of their site visit, 2/15/16, the following was found regarding the stations' hydraulic capacities:
 - Quail Hollow was found to be pumping exactly as expected.
 - Stoney Hill had one (1) pump out of service, so it was pumping at a lower capacity. However, this is not abnormal for a pumping station.
 - Cherry Street was pumping well above expectations. However, the pumps seemed to be cycling on and off too often. So they talked to the engineer to see why that might be and to see what could be adjusted.
- When the smaller pipe diameters were known or estimated to be 4, 6, and 8 inches in diameter, they calculated the flow at 90% capacity. When the larger pipe diameters were known or estimated to be at 10 inches in diameter, they calculated the flow at 95% capacity.
- There were three (3) areas of concern, i.e., with insufficient capacity:
 - Crossing under Route 9.
 - Cross country behind Price Chopper to Fruit and Floral Streets.
 - Whippoorwill Drive, northeast of Bumble Bee Circle.
- Pipe capacity is determined primarily based on diameter and slope. Despite document reviews of both Town and engineering firm records and some field verification, there are still areas with unknown pipe diameters and slopes. Thus, the capacity must be calculated for the unknown areas based on the surrounding known ends.
 - For example, there is a two thousand linear foot section which is unknown. The drop in elevation is 9.5 feet and the overall slope is .00475 feet per foot.
- As originally calculated, the capacity analysis was based on 300 residential units, or 42,300 gpd. The capacity analysis has now been updated to reflect the revised number of 248 residential units, which reflects a waste water flow reduction of 7,300 gpd or a 17.3% reduction for the entire complex.

Board Questions Re: Sewer

- Ms. Cossette asked about the cross-country area referred to on Route 9 that goes from the back of Price Chopper to Floral St.
 - Mr. Gordon remembered there were not adequate records to refer to when the Price Chopper was built.
- Mr. Rosen asked how the Westboro plant would have enough capacity, when he said that he had been reading for years that they are under capacity.
 - Mr. Confalone wondered if that was referring more to 100 year storm event capacity.
 - Mr. Zarette replied that that plant handles 48 million gpd, and that they do have the capacity to handle the increase. He admitted there are peak flow times when there is infiltration in the spring, etc., but the plant does not exceed its capacity. In fact, they are more than sufficient, hydraulically-speaking.
 - Mr. Haverty asked if there was an inter-municipal agreement and suggested checking it for its limits.
 - Mr. Zarette said Shrewsbury is below its limits and can handle the increase.
 - Mr. Rosen questioned how far below its limit Shrewsbury is, but Mr. Zarette did not have that figure.

Sewer Peer Review

- Weston & Sampson representatives were present, but were not prepared to respond. They explained that they had only been told they had been granted the peer review last week and would need more time to prepare. They said they could prepare a list of questions for the next meeting.

Abutters Re: Sewer

- Dale Martin, 6 Pheasant Hill Dr,
 - Asked for clarification on the difference between the two sewer capacity studies of Weston & Sampson having it estimated at 80% and AECOM having it at 95%.
 - Kent Nichols, who was in the audience from Weston & Sampson, said that the 80% capacity ensures that there is enough air to keep waste moving through and ensures hydraulic efficiency.
 - It was also admitted that there some subjectivity involved in these judgment calls, such as the 80% vs. 95%. In past years, only 50% capacity would have been recommended. W&S has used 80% with most other towns and with Shrewsbury in the past, so they made the decision to remain consistent with that figure.
- Peter Reilly, 19 Pheasant Hill Dr,
 - Said he was a member of the Sewer Commission. He explained that there was limited capacity available at the Westboro plant, but said that most of that was for Shrewsbury. However, the reason the moratorium on new sewer hookups for residential properties came about was because it was meant to save capacity for commercial properties. Therefore, this residential development would take some capacity away from that commercial intent. He added that the financial numbers involved can be significant.

Board Questions

- Mr. Gordon brought up the Board of Selectmen letter that had been sent to Jonathan Gulliver, District Highway Director of the Massachusetts Department of Transportation, stating that they viewed the development's traffic proposal as detrimental to the neighborhood. They recommended that the development's access be limited to only Route 20 and that gated emergency access only be allowed Stoney Hill Rd. His assistance was requested in limiting the highway access as described.
 - Mr. Rosen asked Mr. Zarette if he had seen the letter. He had not. He said if he was not told by the Town and/or MassDOT what scenario would work best, he would choose the design. He added that the latest two traffic design options presented had also been reviewed by MassDOT.
 - Mr. Rosen checked on the estimated cost to the developer for a traffic signal. Mr. Zarette said it depends on the extent of the road improvements involved to implement

it, but that it could be as high as \$1 million - \$200,000 for the traffic signal itself and \$600,000-\$700,000 for the road improvements.

- Mr. Sarcione added that they had not received a response from Mr. Gulliver as yet.
- As there were no additional comments from the public, the hearing was closed.

VOTE TAKEN:

Motion: Mr. Gordon moved to continue the hearing for the Comprehensive Permit for 440 and 526 Hartford Tpke to the next regularly scheduled meeting. Mr. Schaetzke seconded. Motion carried.

Hearing 1: The hearing for 440 and 526 Hartford Tpke was continued to March 28, 2016 at 6:45 PM in the Selectmen's Room in Town Hall.

New Business:

Targeted Zoning Committee

Mr. Sarcione explained that a new Targeted Zoning Committee will be formed made up of members of the Board of Selectmen, Planning Board, and Zoning Board. A memo had come to the Zoning Board from the Chairman of the Board of Selectmen. He has requested more information on the commitment involved, such as the number of meeting dates and times, etc. He will inform the Board once he receives a response.

Mr. Rosen and Mr. George said they would volunteer to represent the Zoning Board. Ms. Cossette volunteered to be an alternate should one of them not be able to attend one of the meetings.

Old Business:

Master Plan Update

On March 3, 2016, the Planning Board voted to officially adopt the Master Plan. The consultants are now working on a zoning audit as originally planned. There will be a report before the Town Meeting in May.

Correspondence:

None.

Announcements:

- Mr. Rosen announced that an extra meeting for this hearing only has been added to the Zoning Board schedule. It will be on April 11, 2016 at 7:00 PM in the Selectmen's Room in Town Hall.
- Mr. Gordon announced that Jay Thomas has now replaced Mindy McKenzie-Hebert on the Planning Board.

The meeting adjourned at 8:27 PM.

Respectfully submitted by,

Michele M. Bowers, Administrative Assistant

Reviewed by,

Matthew Sarcione, Assistant Town Planner

Approved by vote of the Board,

Paul M. George, Clerk