

**ZONING BOARD OF APPEALS**

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ZBA 2010-44

Petition of MetroWest Engineering, Inc.
44 Wachusett Road

Pursuant to due notice, the Special Permit Granting authority held a Public Hearing on Thursday, June 17, 2010 at 7:30 p.m. at the Town Hall, 525 Washington Street, Wellesley, on the petition of METRO WEST ENGINEERING, INC. requesting a Special Permit pursuant to the provisions of Section XIVE and Section XXV of the Zoning Bylaw for demolition of structures and hardscape with an existing impervious footprint of 14,210 square feet and construction of new structures and hardscape with an impervious footprint of 20,379 square feet, at 33 WACHUSETT ROAD, which is a use not allowed by right in a Water Supply Protection District.

On May 17, 2010, the Petitioner filed a request for a hearing before this Authority, and thereafter, due notice of the hearing was given by mailing and publication.

Presenting the case at the hearing was Brian Nelson, Engineer, MetroWest Engineering Inc. (the "Petitioner"). Also present were Robert Gemma, Registered Professional Engineer & Professional Land Surveyor, Dan Gordon, Landscape Architect, Patrick Ahearn, Architect and Mike Tartamella, Architect.

Mr. Nelson displayed an Existing Conditions Plan (plan retained by proponent). He said that the footprint of the existing house is 2,651 square feet. He said that there is a circular horseshoe driveway with two access points off of Wachusett Road. He said that the property contains an in-ground pool, spa and pool house with a patio deck.

Mr. Nelson said that the existing driveway has a footprint of approximately 6,800 square feet. He said that the patios and in-ground pool have a footprint of 4,732 square feet of impervious surface. He said that the total impervious footprint is 14,210 square feet. He said that 12,318 square feet of that is located within the Water Supply Protection District (WSPD), which he displayed on the plan. He said that the lot size is 69,034 square feet, or 1.6 acres and is located in a 20,000 square foot Single Residence District.

Mr. Nelson said that the site topography rises up from Wachusett Road to a relative high point at the house. He said that elevations crest about another foot or so towards the back of the lot. He said that the lot slopes down approximately five or six feet towards the northern end of the lot.

Mr. Nelson said that there are no stormwater controls currently in place. He said that water that does not percolate in large storm events runs off of the property.

Mr. Nelson displayed a Proposed Conditions Plan (plan retained by proponent). He said that the existing house will be demolished and the existing driveway will be removed. He displayed the location of the proposed house and new cobblestone entry drive and service driveway that leads to the two-car garages. He said that there will be a terrace at the back of the house as well as another small terrace. He said that impervious surface will be 20,379 square feet, for an increase of approximately 6,000 square feet over the existing condition. He said that the house footprint is 10,304 square feet and both driveways combined have a footprint of 6,088 square feet. He said that the terraces and hardscape are approximately 4,000 square feet. He said that approximately 17,730 square feet of impervious area will be within the WSPD.

Mr. Nelson said that they are proposing an elaborate stormwater management system. He said that there will be area drains in the rear portion of the lot. He said that the downspouts from the gutters of the house will be littered and will discharge into a fairly large infiltration system located at the northwest corner. He said that the garage portion will discharge to a smaller system at the center front of the lot.

Mr. Nelson said that the paved surfaces will be treated with Stormceptor units leading from two catch basins that drain the entry port. He said that there will be TSS removal for treatment for both driveway surfaces. He said that all of the water generated from the impervious surfaces on the site will be discharged to one of the two infiltration systems. He said that the southerly system will handle the roof portion of the garage and a portion of the driveway. He said that the larger system will handle the impervious entry port, the majority of the body of the house and the backyard that wraps around through a series of drain lines.

Mr. Nelson said that sump catch basins will be located on both driveways. He said that four will be located in the center of the turnaround and two will be located at the mouth of the entry court driveway. He said that the diameter of the mini catch basins will be a foot or so more narrow than a traditional catch basin but will be as deep as a traditional four-foot sump.

Mr. Nelson said that there will be a decrease in the amount of runoff leaving the site. He said that the finished grading scheme is in accordance with the requirements of Section XIVE of the Zoning Bylaw.

Mr. Nelson said that they received a letter from the Town Engineer, George Saraceno, dated June 16, 2010. In response to Mr. Saraceno's comments, an additional Stormceptor STC-450 unit was included in the design for the entry court. Mr. Nelson said that they have upsized the larger infiltration system by approximately 20 percent to fully capture and infiltrate the 25-year storm.

The Board asked about protection during construction. Mr. Nelson said that they will run a filter and erosion control barrier around the perimeter of the property. He said that there will be a couple of stone wash pads for vehicles entering and exiting the site. He said that there will be some siltation basins on both sides of the property where it will be graded on a temporary basis for any sheet flow to prevent runoff to abutting properties.

Mr. Nelson said that water from the wheel wash will run through the elevated crushed stone in the pad. The Board said that a sedimentation basin should be installed at each wash pad.

The Board said that mud should be kept off of Wachusett Road. The Board said that the truck wheels should be washed when leaving the site. The Board said that there shall be no wheel wash wastewater from concrete trucks or from other construction materials discharged on the lot.

The Board asked about the sedimentation barriers shown on the plans. Mr. Nelson said that it will be a flexible 12-inch diameter mulch tube.

The Board said that there is a requirement in the Town Bylaw for Best Management Practices. The Board said that calculations should be submitted to show that the standards for Total Suspended Solids (TSS) removal are being met at 80 percent.

Mr. Gemma said that there will be a Maintenance Plan for the stormwater system in terms of maintaining the driveway, the gutters and the infiltration system. The Board said that the Operation & Maintenance Plan (O & M Plan) that was submitted is tough to read and tough to follow. The Board said that the plan should be straightforward for the homeowner. The Board said that the O & M Plan should indicate what sediments depths would require maintenance, what would trigger inspections and how often. Mr. Gemma said that the systems will be inspected annually. He said that they will add requirements for sediment depths to the plan. He said that the bigger infiltration system will pick up runoff from the roofs. He said that they are not anticipating sediment in that system. He said that the other infiltration system will accept runoff from the driveway that has gone through Stormceptors. He said that a reasonable sediment depth would be six inches. He said that it is unlikely that the sediment would reach that depth if the Stormceptor systems are maintained. The Board said a condition will be that a Stormwater Report be submitted to the Department of Public Works (DPW) annually.

Mr. Nelson said that the groundwater level is approximately six to seven feet. Mr. Gemma said that if the foundation is constructed in the summer or fall, de-watering will probably not be necessary. He said that the new foundation will only go down a few feet deeper than the existing foundation. The Board said that a condition will be that discharge be managed under appropriate control if de-watering is necessary.

The Board said that Mr. Saraceno had a comment regarding an additional connection to a manhole that will connect to the Town's stormwater drainage system. Mr. Nelson said that it will be an outlet for the foundation drain. He said that it will capture overflows for the 25-year storm.

The Board said that there will be condition restricting salt use in the WSPD.

Stewart Wiley said that his mother lives at 34 Wachusett Road, which is across the street from the subject property. He said that there is no catch basin on that side of Wachusett Road. He said that there is an easement that runs across 42 Wachusett Road, comes across the back corner of the Wiley property and discharges through an easement that continues onto Appian Drive. He said that his mother's greatest concern is flooding problems that have occurred in the past. He said that she is appreciative that the infiltration systems will capture runoff. He said that she wants to be sure that the systems have been properly designed and engineered.

Mr. Wiley said that his mother submitted a letter asking that the language in Appendix C of the Stormwater O & M Plan under the heading of "Recommended Personnel" and "Record Keeping" be changed from "should" to "shall."

Mr. Gemma said that the peak rate of runoff will be reduced, depending on the storm, by approximately 1.2 cfs to .2 cfs. He said that the total volume of runoff will be decreased by 60 percent.

Mr. Gemma said that the foundation drain is a safeguard to protect the basement. He said that it will flow at a slow trickle rate during high groundwater season from December through the end of April. He said that it will be a gravity drain with a four inch pipe. He said that the foundation drain would not contribute to problems downstream.

Mr. Wiley asked if bedrock is shallow on the property. Mr. Gemma said that bedrock was encountered at seven feet. He said that it was encountered at three feet at one section so they stayed away from that area for infiltration.

The Board said that there will be a condition that equipment be parked on the portion of the property that is outside of the WSPD. The Board said that there will also be a requirement that all soil with visible stains be removed.

Mr. Nelson said that there should be a thorough pre-construction meeting among the Engineers, Contractors and interested Town Departments. He said that typically the biggest problem with large projects is miscommunication between the various parties. The Board said that it will be important for the contractor to read the WSPD bylaw. The Board said that there should be no hazardous materials or pollutants should be used. The Board said that equipment must be removed for refueling.

The Board said that it has asked in the past that the Superintendent be designated as the responsible party for the project. Mr. Nelson said that they were open to that suggestion.

Mr. Wiley asked about analysis of groundwater flows and basement flooding. Mr. Gemma said that is not typically done unless the infiltration system will be located within two feet of the high water table.

Steve Fessler, 42 Wachusett Road, said that he was concerned about basement flooding. He said that there is a lot of rock in the area. He said that the stormwater systems in the area don't connect. He said that the storm drain runs into the street and then across two or three properties before it hooks up to the adjacent street. He asked if the flooding problems will be made worse by spreading all of the water underground.

Mr. Gemma said that it would be difficult to construct a groundwater model. He said that the groundwater can only mound up two feet because there is a relief pipe in the infiltration system that will divert it to the storm drain. He said that he did not think that a groundwater mound would persist 300 feet away, based on the type of infiltration. He said that after a quick hit with a storm, the water begins to recede immediately.

The Board asked if Mr. Fessler's basement currently floods. He said that it does not because he takes precautions. Mr. Gemma said that how the site pitches and how the gutters drain could affect groundwater settling around Mr. Fessler's basement.

Mr. Fessler said that the proposed house will sit on one of the highest points in Wellesley. He said that water runs off in all directions. The Board said that there will be less water running free from the site. Mr. Fessler said that there is a level of sensitivity that small changes could affect. He said that he wanted to have it on record in case of future problems.

Mr. Fessler asked that the Board include a condition that the project will comply with all Town construction ordinances, if it chooses to approve the Special Permit. The Board said that the Building Inspector enforces the conditions that are subject to the Special Permit. The Board said that the conditions will be related to the WSPD.

Statement of Facts

The subject property is located at 33 Wachusett Road, on a 69,034 square foot lot with an existing impervious footprint of 14,210 square feet, in a Water Supply Protection District.

The Petitioner is requesting a Special Permit for demolition of structures and hardscape with an existing impervious footprint of 14,210 square feet and construction of new structures and hardscape with an impervious footprint of 20,379 square feet, which is a use not allowed by right in a Water Supply Protection District.

Existing Conditions Plan, Proposed Erosion and Sediment Control Plan, Proposed Layout Plan, Proposed Grading Plan, dated 4/30/10, Proposed Drainage and Utility Plan, dated 3/1/10, Details Plan C6, Details Plan C7, dated 4/30/10, stamped by Robert A. Gemma, Professional Land Surveyor & Registered Professional Engineer, proposed floor plans and elevation drawings, dated 4/30/10, prepared by Patrick Ahearn, AIA, Proposed Landscape Plan and Landscape Details, dated 4/30/10, prepared by Dan K. Gordon Associates, Inc., and Hydrologic Analysis, dated March, 2010, prepared by MetroWest Engineering, Inc. were submitted.

On June 16, 2010, the Planning Board reviewed the petition and recommended that the Special Permit be granted with conditions.

On June 16, 2010, George Saraceno, Department of Public Works, Engineering Division, submitted a memo listing conditions for approval.

Decision

This Authority has made a careful study of the materials submitted and the information presented at the hearing. The subject property does not conform to the current Zoning Bylaw, as noted in the foregoing Statement of Facts.

It is the opinion of this Authority that the Design and Operation Standards in Part F are adequately satisfied and not otherwise prohibited in Part D.1 of Section XIVE of the Zoning Bylaw.

Therefore, a Special Permit is granted for demolition of structures and hardscape with an existing impervious footprint of 14,210 square feet and construction of new structures and hardscape with an

impervious footprint of 20,379 square feet, which is a use not allowed by right in a Water Supply Protection District, subject to the following conditions:

1. Infiltration basins shall be installed during construction adjacent to the wheel wash areas on the two driveways.
2. Wheels shall be washed on all trucks exiting the site.
3. There shall be a pre-construction meeting with the contractor to review all of the prohibitions and requirements in a WSPD.
4. The Superintendent shall be the responsible party.
5. The Operation and Maintenance Plan shall be simplified to be straightforward and easy to understand for the homeowner.
6. An annual report shall be prepared by a drainage professional to summarize inspection and maintenance activities, review the performance of the infiltration system, and provide recommendations for repair or remedial measures required to maintain the performance of the system and submitted to the DPW.
7. The use of salt on the driveways is prohibited.
8. Calculations shall be submitted showing that the BMP standards for each of the design points are met.
9. The size of the infiltration system at the northwest side of the lot shall be increased to capture the 25-year storm runoff.
10. The design for the entry court shall be revised to include a Stormceptor STC-450 unit.
11. All conditions listed in Mr. Saraceno's June 16, 2010 Memo shall be incorporated in this decision
12. Wachusett Road, and if necessary, Monadnock Road and Albion Drive, shall be swept as necessary during construction.
13. There shall be no re-fueling on-site.
14. All soil with visible stains shall be removed.
15. All equipment and hazardous materials shall be stored outside of the WSPD.
16. There shall be no wash down of heavy equipment on the site.
17. All disturbed areas shall be stabilized immediately.
18. Discharge shall be managed under appropriate control if de-watering is necessary.
19. Language in Appendix C of the Stormwater O & M Plan under the heading of "Recommended Personnel" and "Record Keeping" be changed from "should" to "shall."

The Inspector of Buildings is hereby authorized to issue a permit for construction upon receipt and approval of a building application and detailed construction plans.

If construction has not commenced, except for good cause, this Special Permit shall expire two years after the date time-stamped on this decision.

APPEALS FROM THIS DECISION,
IF ANY, SHALL BE MADE PURSUANT
TO GENERAL LAWS, CHAPTER 40A,
SECTION 17, AND SHALL BE FILED
WITHIN 20 DAYS AFTER THE DATE
OF FILING OF THIS DECISION IN THE
OFFICE OF THE TOWN CLERK.

Richard L. Seegel, Chairman

Cynthia S. Hibbard

David G. Sheffield

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44 Wachusett Road

cc: Planning Board
Inspector of Buildings
lrm