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ZONING BOARD OF APPEALS
TOWN HALL WELLESLEY, MA 02181

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ZBA 96-50

Petition of Town of Wellesley/DPW/Water & Sewer Division
Rosemary/Longfellow Well Site (Pump Station #5)/Worcester Street (Eastbound)

Pursuant to due notice, the Special Permit Granting Authority held a Public Hearing on Thursday, July 25, 1996 at 8 p.m. in the Great Hall at the Town Hall, 525 Washington Street, Wellesley, on the petition of TOWN OF WELLESLEY/DPW/WATER & SEWER DIVISION requesting Site Plan Approval pursuant to the provisions of Section XVIA and Section XXV of the Zoning Bylaw to allow construction of a one-story building to be used as a Water Treatment Facility with a footprint of 3,600 square feet and a floor area of 7,200 square feet; and an additional 2,800 square feet of drives and parking area with associated landscaping at the ROSEMARY/LONGFELLOW WELL SITE (PUMP STATION #5)/WORCESTER STREET (EASTBOUND) in a Conservation District, a Water Supply Protection District and a Flood Plain District.

On June 27, 1996, 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 Tim Bailey, Director of the Department of Public Works, who was accompanied by Sidney Farnsworth, Commissioner of the Board of Public Works; Joseph Duggan, Superintendent of the Water & Sewer Division; and Leonard MacKoul, Project Engineer from Earth Tech.

General Background

Mr. Duggan explained that the Water & Sewer Division has arrived at a good solution to the problem defined by the Safe Drinking Water Act. The plan is to build three water treatment facilities to treat all Wellesley water supplies, which consist of seven wells: three wells at Morses Pond and four wells in the Rosemary Valley. There will be one treatment facility at Morses Pond to service the three wells; one facility to combine the T.F. Coughlin Well and the Wellesley Avenue Well, which are 750 feet apart, off of Wellesley Avenue near the Needham Town line; and one facility located diagonally behind the Longfellow Well on the eastbound side of Route 9, which will service the two smaller Rosemary Well and Longfellow Well.

Mr. Duggan stated that the treatment process at all three facilities will be corrosion control and iron and manganese removal. The process will consist of tray aeration with hydroxide addition for pH control, and green sand filtration for iron and manganese removal. The iron and manganese are absorbed on the green sand filter material, and then backwashed out. The

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backwash water will then be concentrated so that 90% of it can be recycled into the system. The remaining 10% will be sent into the MWRA sewer system. The process is identical at the three treatment facilities.

The architecture of the treatment facilities is very similar to the existing well stations. The Morses Pond and Wellesley Avenue facilities will be identical and will be sized for a design flow rate of 2 million gallons per day. These facilities will have 5 of the pressure tank vessels, which are the green sand filters. The Rosemary/Longfellow facility will be sized for a design flow rate of 1 million gallons per day, and will have 4 of the pressure tank vessels.

The first floor of the treatment facility will contain the pressure green sand vessels and the chemical feeds. One side will be dedicated to treatment additions. Beneath the first floor will be a pipe gallery, which will be surrounded by the clear well, which will hold the treated water, and the residual separation tanks, which will contain the concentration of the backwash water where the residuals will be settled out and pumped into the sewer system. The supernatant will be syphoned off and recycled into the headworks of the plant.

The Board asked general questions regarding the capability of the process, equipment and size of the facilities to provide for future changes in the process, or the need for additional equipment.

Mr. Duggan responded that the present flow capacities are the maximum allowable. Mr. Farnsworth stated that the need for future additional equipment is difficult to determine. When the three facilities are completed, Wellesley will be in compliance with the Safe Water Drinking Act. There has been provision for compliance with the radon and groundwater disinfection regulation. The proposed process is as far-thinking as possible.

Jack Brady, Fairbanks Avenue, asked why the buildings could not be increased by another 1,000 square feet to be prepared for any eventuality. Mr. Duggan said that if the extra square footage were available, there would be nothing to fill it. To try to treat in advance for an unknown is not sensible. He added that the facilities have been sited with the goals of treatment process efficiency and expansion.

The Board asked about potential noise. Mr. MacKoul responded that all of the major pumps are located inside the building. The aerator has a small 3/4 horsepower blower located on its top. The diesel generator has intake and exhaust mufflers. The generator will be turned over once every two weeks during the day, but would only be used continually in the event of a town power failure.

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The Board asked how much personnel would be involved in running each of the sites. Mr. Duggan said that DEP is exploring this issue with them. DEP would like to see one operator at one of the facilities for 4 hours per day, which is more time than is presently required. DEP is suggesting that one facility be designated as a main facility, and the other two as satellites. More maintenance people will be required as there is additional equipment to be serviced. A DPW employee will always be on site when chemical deliveries are made. As the bulk storage tanks have been sized for a minimum 30 day capacity, there would be deliveries once a month or every two months.

The Board noted the lack of bathroom facilities in all of the floor plans. Mr. Duggan said that DEP wanted one of the facilities to have a restroom. It would probably be located in the abandoned Wellesley Avenue pump station. The Board strongly recommended that bathroom facilities be provided in each of the treatment facilities.

Mr. MacKoul gave a general description of the treatment facility, and a detailed explanation of the treatment process.

Site Information

Using the Existing Conditions Plan, Mr. MacKoul located the proposed facility about 100 feet from Route 9 and behind the existing Longfellow Pump Station. Presently, there is an access road from Route 9 to the Longfellow Well. The pump station has been treating water from the Longfellow Well and the Rosemary Well, which is located off of Route 9/Westbound.

Mr. MacKoul stated that the water line coming from the Rosemary Station will be pipe jacked beneath Route 9 to the eastbound side of Route 9, and will connect with the water line coming from the Longfellow Station. Both of them collectively will come into the treatment facility.

This facility will be the smallest of the three and is rated at 1 million gallons per day. The proposed 80 foot by 45 foot one-story building will have a brick veneer and an asphalt shingle roof. It will contain the same basic equipment and processes as the other two treatment facilities.

The access road from Route 9 will be increased slightly to accommodate the chemical fill trucks, which will enter and pull into the area in front of the building. The aerator, emergency diesel generator, propane tank and transformer will be located behind the building on crushed stone. Supplemental plantings will be added to screen the buildings.

The Board asked if the treatment facility would interfere with the public access to the Town Forest and Longfellow Pond. Mr. MacKoul responded that no additional barriers will be added.

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The Board noted the lack of bathroom facilities on the plans, and strongly recommended that bathroom facilities be provided on the site.

Logan Huffman, 73 Longfellow Road, asked if the water from the Rosemary/Longfellow Well area is now, or has been contaminated by volatile organic compounds such as oil.

Mr. Duggan responded that the water is not contaminated by drinking water standards. When their quarterly monitoring began, the Morses Pond, Rosemary and Longfellow Wells came up with near threshold readings. By "threshold", he meant .4, .5 and .6 parts per billion, where the standard is 5 parts per billion. During the last two and one-half years, nothing has shown up at any of the wells. They are well below standards.

Mr. Huffman asked several other questions which did not pertain to the petition for site plan approval for the treatment facility.

Statement of Facts

The subject property is located off of Worcester Street/Eastbound on a 62.29 acre parcel, which contains the Longfellow Pond and the Rosemary Brook Town Forest, in a Conservation District, a Water Supply Protection District and a Flood Plain District. The site is bounded by Worcester Street/Eastbound to the north, Business A and Single Residence Districts to the east, and a Single Residence District to the west and south. The existing building on the site, approximately 175 feet south of Worcester Street, is the Longfellow Pump Station, a 15 foot by 15 foot one-story brick structure that houses the well pump and chemical feed equipment.

The petitioner is requesting Site Plan Approval to allow construction of a one-story building to be used as a Water Treatment Facility, with a footprint of 3,600 square feet and a floor area of 7,200 square feet. An additional 2,800 square feet of drives and parking area, which will include 3-5 unmarked spaces, and associated landscaping will be added.

The following plans were submitted: Existing Conditions Plan (1LA-1) dated 4/8/96, signed by Leonard MacKoul, Registered Professional Engineer, and Scott T. Ridder, Registered Landscape Architect; Site Plan (1LA-2) dated 5/23/96, signed by Leonard MacKoul, Registered Professional Engineer, and Scott T. Ridder, Registered Landscape Architect; Floor Plans & Elevations (1A-1) dated 4/8/96, signed by Leonard MacKoul, Registered Professional Engineer, and John W. Look, Registered Architect; Wall Sections (GA-1) dated 4/8/96, signed by Leonard MacKoul, Registered Professional Engineer, and John W. Look, Registered Architect; Outside Piping Plan (1M-1) dated 4/8/96, signed by Leonard MacKoul, Registered Professional Engineer; and Electrical Site Plan (1E-7) dated 4/8/96, signed by Leonard MacKoul, Registered Professional Engineer, and Rama K. Chandra, Registered Professional Engineer. A plan titled

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Property Line Delineations with site plans for Wellesley Avenue/T.F. Coughlin, Rosemary/Longfellow and Morses Pond, dated July 25, 1996, signed by Douglas R. Stewart, Professional Land Surveyor was also submitted.

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The following written information was submitted: An Official Development Prospectus, Test Boring Results prepared by New England Boring Contractors of CT, Inc., dated 4/21/95; Drainage Calculations and Compensatory Storage dated 4/23/96, revised 5/23/96, prepared by Dale MacKinnon, Registered Professional Engineer; and Hydrant Flow Data Summary, dated 5/23/91, prepared by ISO Commercial Risk Services, Inc.

An Order of Conditions (DEP 324-224) was issued by the Wellesley Wetlands Protection Committee on June 20, 1996.

The Design Review Board held a Preliminary Review of the project on May 23, 1996, and a Final Review on June 13, 1996.

All submitted plans and written information were also sent to the Planning Board, Wetlands Protection Committee, Town Engineer, Board of Health and the Fire Chief, as required by Section XVIA of the Zoning Bylaw. Written responses from each of the above were received and are on file in the office of the Board of Appeals. On July 23, 1996, the Planning Board reviewed the petition and voted to recommend no objection.

The Wetlands Protection Committee held hearings on May 9, May 30, and June 20, 1996. In the Committee's opinion, the proposed plans for on-site recharge meet requirements stipulated in Section XIV-E of the Zoning Bylaw. The run-off generated on site will be routed over grassed swales toward Rosemary Brook and the adjacent wetland. In the Committee's opinion the proposed plans for regrading will not detrimentally impact the quality or quantity of groundwater.

Decision

This Authority has made a careful study of the materials submitted and the information presented at the hearing. The petitioner's proposed construction of a one-story water treatment facility with a footprint of 3,600 square feet and a floor area of 7,200 square feet, constitutes a Major Construction Project pursuant to Section XVIA of the Zoning Bylaw because it includes the construction of 2,500 or more square feet of gross floor area, and is pursuant to Section XIVB and Section XIVE of the Zoning Bylaw, as it is located in both a Flood Plain District and a Water Supply Protection District.

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It is the opinion of this Authority that the submitted plans for the proposed construction of the water treatment facility comply with the Zoning Bylaws of the Town, protect the safety, convenience and welfare of the public, minimize additional congestion in public and private ways, and insure adequate protection for water, sewerage and drainage. Furthermore, they insure compliance with Section XVI and Section XXII of the Zoning Bylaw.

Site Plan Approval is hereby given by this Authority, as voted unanimously at the Public Hearing, pursuant to Section XVIA, Section XIVB, Section XIVC and Section XIVE of the Zoning Bylaw, subject to the conditions attached hereto as Addendum A.

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.

cc: Planning Board
Wetlands Protection Committee
Tim Bailey, Director/DPW
Inspector of Buildings
edg



Kendall P. Bates, Acting Chairman



Robert A. Bastille



William E. Polletta

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ADDENDUM A.

1. All work shall be performed in accordance with plans submitted and on file with this Authority.
2. All design and construction must comply with all applicable state and local codes.
3. All requirements of the Town of Wellesley Fire Department shall be complied with.
4. All requirements of the Department of Public Works shall be met including, but not limited to the requirement that water, sewer and electric connections, together with drainage connections be made in accordance with DPW standards.
5. Upon completion of the project, a complete set of site utility plans shall be submitted to the Department of Public Works.
6. A copy of the occupancy permit issued by the Inspector of Buildings shall be submitted to this Authority at the time of issuance.
7. All requirements of the Wellesley Wetlands Protection Committee shall be complied with, and the Order of Conditions (DEP 324-224) is hereby incorporated into this decision.
8. All requirements of the Department of Environmental Protection shall be met.
9. Although not a condition, the Board of Appeals strongly recommends that bathroom facilities be located at the Rosemary/Longfellow Wells Water Treatment Facility.

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