

FELONEY ASSOCIATES ARCHITECTS

105 FRESH POND PARKWAY CAMBRIDGE MASSACHUSETTS 02138

February 14, 1996

Mssrs. Robert Healy, City Manager and
Richard Rossi, Deputy City Manager
City Hall
Cambridge, MA 02139

Re: Water Department Project

Dear Bob and Richie,

Having attended the Tobin School meeting and meditated in the interim, I am more convinced than ever that the direction being taken, i.e., replacement on the present site, indicates a lack of comprehensive planning values, and the direction ought to be reconsidered.

With respect to history, when the filtration plant was built, West Cambridge was still sparsely developed and Fresh Pond Parkway existed in rudimentary form. The plant was built with few neighbors to have an impact on.

Today, the water operation is much bigger and together with other inappropriate, nonconforming uses and the Parkway itself, presents a complete barrier between the Tobin School/West Cambridge area and the Fresh Pond Reservation. The barrier is a major problem but the least the City could do is to begin by removing its own portion of it. There is talk from time to time of establishing a pedestrian connection somewhere near the end of Lexington Avenue. Would it be better to have this arrive in a park or in the middle of an industrial establishment?

I know that the wetlands question to whatever extent it exists would be a major one but consider the advantages of a location along Concord Avenue.

LAND USE

Neighbors across Concord Avenue are commercial/industrial properties, not dissimilar to the Water Department. On the same side is City owned, undeveloped land, not active recreation areas. Zoning questions disappear.

RECREATION

It frees up the present site for more appropriate use. I am really puzzled that your administration, which has been so active and effective in developing and maintaining open space, doesn't seize this opportunity to do more of the same.

ECONOMICS

Another location would save \$15,000,000 in MWRA costs. If the construction time stretches out, as public projects sometimes do, \$15,000,000 could easily go to \$20,000,000 or \$25,000,000.

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OFFICE OF THE CITY MANAGER

TRAFFIC

Concord Avenue offers easy safe access, perhaps at Neville Manor, where a signalized intersection already exists. Consider this vs. the Parkway, where vehicles, including some from the Water Department, make left turns in exiting. How much money might be consumed by accidents followed by Workers Comp/disability claims? When they turn right on the Parkway they frequently make an illegal left turn onto Huron Avenue.

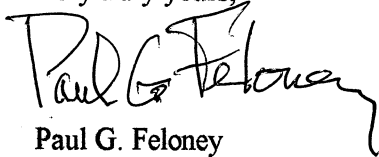
NEIGHBORHOOD USE

I don't know of a more valuable, prized public asset than the Fresh Pond Reservation or one that is more difficult and dangerous to reach. We can do better. Moving the Water Department would be a major step in alleviating the problem.

I said earlier that I know that the Wetlands issue could be a difficult one, but I know that there is an appeals process and that the process is not impossible to pursue. An appeal could take a year to process but what is that in dealing with a project that we will have for 100 years. It will cost additional professional fees but what is that in terms of overall design costs.? The answer to both questions in my judgment is, very little.

Please give these ideas some thought and if there is to be serious reconsideration of the siting question, please make it a more open public discussion. Since time appears to be critical, I am distributing this as indicated below in the hope of starting a public dialog.

Very truly yours,



Paul G. Feloney

cc: All City Councilors
All School Committee Members
Mike Nicoloro
Susan Schlesinger
Liz Epstein
Planning Board
Tobin PTO
Stewart Clements
Mary Wylie
John Moot
Paul Deitrich
Hugh Russell.
Tab
Chronicle
Sandra Bittenbender

water.doc



CITY OF CAMBRIDGE

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EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

RICHARD C. ROSSI

Deputy City Manager

April 17, 1996

Paul G. Feloney
Feloney Associates Architects
105 Fresh Pond Parkway
Cambridge, MA. 02138

Re: Proposed Construction of New Water Treatment Facility - Fresh Pond

Dear Mr. Feloney:

We want to thank you for taking an interest in the City's plans to construct a new water treatment facility at Fresh Pond, as well as your concern for the Cambridge community. We all have worked over several years very well together on many city construction projects which have been great additions to the community. The new water treatment plant project will be no different. Your statement which indicates a lack of planning values by the City is grossly unfair, and we urge you to read the comprehensive documents prepared for this project. Michael Nicoloro, Managing Director of the Water Department, will gladly make those available to you.

Your assessment that siting is a critical decision since the proposed facility will be designed and used for the next 75-100 years is a correct one. For this very reason we believe it was critical to perform an extensive analysis to determine the best site for the new water treatment facility, and this analysis was performed and concluded that the new water treatment facility can be designed at the existing site with minimal impact on the environment, abutters, and reservation users. In short, the existing site is the best and only reasonable option.

With regard to the specific points cited in your letter, the attached responses are organized by topic in the same manner as your letter, in an attempt to address all your issues. Deputy City

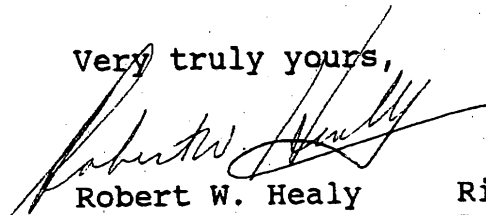
page -2-
Paul Feloney

Manager, Richard Rossi has agreed to be your project contact person and would be pleased to meet with you periodically and help answer any questions you may have.

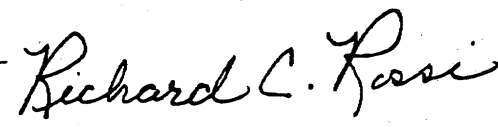
Another important issue which you raised and the city is planning for, is a safe pedestrian crossing from the West Cambridge streets which abut the M.D.C. roadway over to the Fresh Pond Reservation. The City has engaged a professional traffic/engineering consultant to study and prepare a plan for this difficult problem which will be coordinated with the MDC. The Community Development Department is managing that public process, has discussed it with the Water Department and CDM, and Liz Epstein can provide you with more information.

We sincerely appreciate and respect your input and welcome your continued interest in this project.

Very truly yours,



Robert W. Healy
City Manager



Richard C. Rossi
Deputy City Manager

Land Use

The entire reservation is zoned "open space" therefore, a WTP at any location within the reservation would require a special permit (municipal uses are allowed with a special permit). You however, state that neighbors across Concord Avenue are commercial/industrial properties, which are similar to a WTP. Neville Manor, a sensitive receptor would be a direct abutter to a plant at that location. Because of its close proximity to Neville Manor, a WTP at the Concord Avenue location raises more construction noise and traffic concerns, as well as operational traffic conflicts with residents, than a new WTP at the existing site. The closest residents to the existing site are separated from the existing (and proposed) WTP by the four-lane Fresh Pond Parkway and a railroad right-of-way. In addition, many of the abutting land uses along Fresh Pond Parkway are commercial.

Recreation

The City remains committed to maintenance and enhancement of open space throughout the reservation, as demonstrated by its efforts to find the most suitable and least disruptive site for a new WTP. Siting the WTP at a new location may "free up" the present site for recreation, but would disrupt the recreational use at an alternative site. The area adjacent to Neville Manor is a unique area in the reservation, as noted in the IEP Inc. report, "Cambridge Wetlands 1989 Update: Identification, Classification, Evaluation." Specifically, the report describes the area as "one of the more secluded sections of the reservoir" and a valuable wetland and transition area between wetland and upland. The report also notes that "the added benefit of protecting a wetland for these values is the preservation of open space. This wooded area is one of the few remaining sites in Cambridge where the atmosphere generated can be experienced." Therefore, its use for a WTP would result in a loss of important habitat, as well as a loss in recreational and educational opportunities associated with that habitat. Furthermore, constructing the new WTP at a location other than the existing site would result in the temporary (3+ year) disruption and loss of recreational use of the two sites, instead of one site, since the existing plant would have to be demolished and significant site preparation would be required before that site would be available for recreation. In addition, extension of the raw water (Stony Brook Conduit) and finished water (high-lift force main) pipelines would result in significant tree removal, shoreline disruption, and resulting short-term impacts to reservation users. No administration in the City's history has invested in, improved and added more green space than this one. A fact we are very proud of. This will always be one of our primary land use goals.

Economics

The existing site is the least cost WTP alternative of the three sites studied in detail. Even though the City will need to purchase \$13.4 million of MWRA water to construct the new plant at the existing site, the additional costs associated with the other sites makes those sites more costly.

Traffic

The proposed WTP includes improved access and egress. The site will be accessed from the same location off the parkway, but a "no left turn" entrance for westbound traffic will increase safety at the entrance. Other measures to increase safety of the entrance will be investigated and discussed with the MHD and MDC to ensure consistency with planned improvements to Fresh Pond Parkway.

We reviewed access from Concord Avenue during the siting study and concluded that it would be more difficult than at the existing site due to the presence of wetlands and the existing topography, which would have to be altered significantly to allow for access from Neville Manor at the traffic light. In addition, directing construction traffic through Neville Manor would create short-term noise impacts and concerns about safety to the more elderly residents in particular. This area is already a bottleneck with inadequate parking and areas for vehicular circulation.

Neighborhood Use

We agree that the reservation is one of the most valuable public assets in the city and should be maintained as such. Access to the reservation is a concern regardless of the plant location since the reservation is located in a densely populated and commercial area surrounded by heavily traveled roadways.

A new WTP at the existing plant site is consistent with the goal of increasing public access to the reservation. A number of improvements to the existing public access are proposed at the existing site and throughout the reservation, as enumerated in the recently filed ENF, including:

- improved access/egress at the existing site, as well as possible additional parking/access along Concord Avenue. The number of parking spaces that will be available to park users on weekends and in the evenings will increase as a result of the proposed project;
- shoreline improvements which will include upgrading of the existing pathways and separation of those pathways from WTP operations and traffic; and
- increased visual access to the reservoir from Fresh Pond Parkway by consolidating the structures, so that the new WTP will be approximately 2/3 the length of the existing facility.

All of these project components will enhance the value of the reservation as a whole. The project is being designed and coordinated with the Fresh Pond Parkway Enhancement Program which will further improve parkway aesthetics and site accessibility.

Wetlands

The wetland appeal process is time consuming (adding an additional 1-2 years) and costly. This process would require an alternative analysis to demonstrate that there is no reasonable alternative to the proposed wetland alteration that is anticipated to be required at a Concord Avenue site. The state DEP, in considering whether or not to grant a variance from the Wetlands Protection Act and to thereby allow wetland filling will place heavy emphasis on the alternative evaluation. A project will fail to pass this reasonable alternative test if there is evidence that a non-wetlands option is feasible. Therefore, if we decide to pursue a Concord Avenue site with significant wetlands alterations, we would more likely end up back at the existing WTP site since, in this case, it provides a reasonable alternative to extensive wetland impacts. This permitting "do loop" can be avoided by selecting the most reasonable alternative at the project outset instead of waiting for DEP to force its selection through the variance process.

April 10, 1996

To: Mayor Russell, Vice Mayor Born, Councillors Davis, Duehay, Galluccio, Reeves, Sullivan, Toomey and Triantafillou.

From: Paul Feloney, 105 Fresh Pond Parkway
John Moot, 44 Coolidge Hill Road

Subject: The New Cambridge Water Treatment Plant.

This project, we believe, is the largest and most expensive project to be undertaken by Cambridge in its entire history. The project, it is estimated, will cost the people of Cambridge \$58 million dollars, plus the interest costs on the bonds.

We must be sure that we are right when we settle on the location and design of this new treatment plant. It must serve the residents of Cambridge for 50 years at least.

The present plan is to demolish the existing plant and go on MWRA water for about 2 years while a new facility is built on the same site.

Before proceeding further the City should, we believe, consider an alternative site that has been given only cursory consideration: the possibility of building the treatment plant in the area around the Stony Brook and Hobbs Brook Reservoirs. The advantages of locating the treatment plant in that area are:

- 1.- Electric power savings for every year of the life of the new plant. The treated water would flow by gravity into the Cambridge distribution system. There would no longer be the need to pump the water up to Payson Park, a very significant expense. (Payson Park Reservoirs could be kept full of water for use in emergencies including a major fire.) Savings on electricity would be realized every year.

- 2.- A saving of the \$15 million cost of purchasing MWRA water during construction. This cost is figured at \$7.5 million per year and assumes that the plant will be completed on schedule.

- 3.- The City would gain a large addition of park land, most of the area now occupied by the water treatment plant.

The one-time saving of \$15 million plus the long-term benefits of reduced electric costs and additional parkland around Fresh Pond are so significant that this site by the Stony Brook and Hobbs Brook

Reservoirs should be carefully considered. We should try very hard to find a way to site the treatment plant there.

Even if it should cost more to build at that location, the \$15 million possible saving could instead be invested in the treatment plant. Even after spending that \$15 million or some part of it, the residents of Cambridge would have lower water rates, thanks to lower annual electrical costs, and would be able to enjoy more park land around the reservoir. Kingsley Park, Lusitania Field and all the land to Neville Manor would be joined into one large park!

The possibility of siting the treatment plant at Hobbs and Stony Brook has not been carefully considered. In the report of Camp Dresser & McKee all sites in this area were discarded with this short comment.

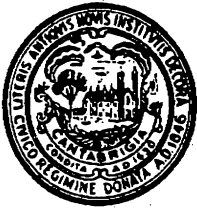
"Areas considered but eliminated from further consideration included: Areas around Stony Brook and Hobbs Brook Reservoirs - The sites around the upland reservoirs would eliminate the storage capacity and mixing capability provided by Fresh Pond Reservoir."

The reasons given appear inadequate. No further consideration was given to the site.

If the treatment plant could be built in the Hobbs and Stony Brook Reservoirs area, it is clearly worth doing. If it takes extra time to evaluate the possibilities, to design the plant, or to secure permits, the potential benefits are so great that delaying the project is warranted. At the moment we do not know whether or not it is possible. With so much at stake, we urge the City administration to take a time out now to get the answer to this fifty-eight million dollar question.

As you know, one of us, Paul Feloney, initiated the discussion of alternate sites with his letter supporting a different site along Concord Avenue. This upland reservoir proposal combines the neighborhood benefits pointed out in that earlier letter with some substantial economic advantages.

cc: Robert Healy, City Manager
Michael Nicoloro, Managing Director of Water Department
Joseph J. Harrington, Chairman of the Water Board
Ann C. Roosevelt, Member of the Water Board
Kevin Rogers, Member of the Water Board
Jonathan L. Yeo, Member of the Water Board
The Cambridge Chronicle, Amy Miller
The Cambridge Tab, Bill Premo



CITY OF CAMBRIDGE

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EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

RICHARD C. ROSSI

Deputy City Manager

April 17, 1996

Mr. Paul G. Feloney
Feloney Associates Architects
105 Fresh Pond Parkway
Cambridge, MA. 02138

Mr. John Moot
44 Coolidge Hill Road
Cambridge, MA. 02138

Dear Messrs Feloney and Moot:

The Purpose of this memorandum is to address your April 10, 1996 correspondence regarding alternative sites for the proposed Cambridge water treatment plant (WTP). I have asked both City Water Department staff and our consultant, Camp Dresser & McKee (CDM), to review your comments and their input is reflected herein.

We agree that absolute confidence in site selection is required before a final site selection is made. However, we disagree with your conclusion that treated water could be conveyed by gravity to the City's distribution system directly from WTP at Stony Brook (or Hobbs) Reservoirs. Water levels in Stony Brook Reservoir are approximately 120 feet below that in Payson Park Reservoir. Therefore, a new pump station at Stony Brook Reservation and a new force main to Payson Park Reservoir would have to be constructed, resulting in no electric power savings.

In choosing the existing site for the new WTP, the City and CDM conducted a rigorous siting analysis to ensure that the most feasible site is selected, based on numerous technical, environmental, and cost conditions. The results of the analysis are described in the report entitled "Water Treatment Plant Conceptual Design Siting Report" (September, 1995). That report describes a 3-phased siting approach, wherein candidate sites were first identified and then screened by applying successively more criteria until determining a preferred site, which is the existing plant site. Joseph J. Harrington, PhD, P.E., Chairman of the Water Board informs me also, that he had discussed this

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Paul Feloney
John Moot

very issue with Mr. Moot, earlier this year and had explained the same reasoning as contained in this letter why your suggestions were not feasible.

The siting analysis began with identification of all open areas in the vicinity of the water supply system, including sites at Hobbs Brook and Stony Brook Reservoirs, as well as sites near the Fresh Pond and Payson Park Reservoirs. Sites at Hobbs Brook and Stony Brook Reservoirs were eliminated in the first round of site screening for the following reasons:

The storage capacity of Fresh Pond Reservoir would be lost. The safe yield (i.e., the amount of water available at any given time) of the city's water supply consists of the storage capacity in the Hobbs Brook, Stony Brook, and Fresh Pond Reservoir. To maximize the system's safe yield, the future water supply system must use the storage capacity of all three reservoirs. Sites far removed from the Fresh Pond Reservoir (i.e., sites around Hobbs Brook and Stony Brook Reservoirs) would require excessive pumping in order to retain the storage capacity in the Fresh Pond Reservoir. Sites in the vicinity of the Fresh Pond Reservoir could easily maintain the system's current safe yield; therefore, they are preferable to sites at Hobbs Brook or Stony Brook Reservoirs.

New infrastructure requirements would be significant. If the City built a new WTP at Stony Brook Reservoir, in order to maintain the same safe yield (thus taking advantage of Fresh Pond), the existing Stony Brook conduit would have to be retained for conveyance of raw water to Fresh Pond. A new raw water pump station would have to be constructed at Fresh Pond along with a new force main from Fresh Pond back to the Stony Brook WTP. In addition, as mentioned above, for the City to maintain its secured treated water storage at Payson Park and to provide adequate pressure in the City's distribution system, a new pump station located at the new Stony Brook WTP and a 40-inch force main from Stony Brook Reservoir to Payson Park Reservoir would also have to be constructed. This construction would also result in more environmental and land use disruption and increased costs. The existing conduit and plant would have to be kept on-line during construction of a new conduit and plant, or the City would have to rely on MWRA water for the duration of construction. Construction of new pipelines would also require acquisition of additional easements through highly developed areas -- another time-consuming and costly venture.

Both Hobbs Brook and Stony Brook Reservoirs are located outside of the City of Cambridge. A site that is not City-owned is less suitable for a new WTP because of land cost, the legal implications of land taking, and the loss of tax revenue. Logistically, locating a new WTP outside the City is also more difficult because of the approvals and review required by the host communities (in this case, Weston, Lexington, Lincoln and Waltham). Based on experience from past projects,

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Paul Feloney
John Moot

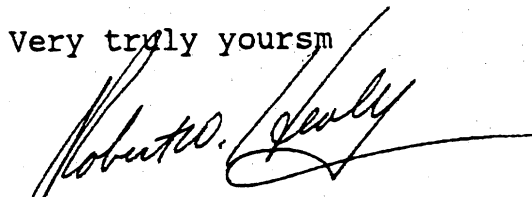
significant project delays could result by attempting to site a plant outside the community that is being served by the plant. These delays could also translate into significantly increased project costs.

Water Department staff would be de-centralized. Currently, and under the proposed plan, maintenance staff are located at the plant site. Siting a plant at a remote site would result in the need to sever the staff so that some remain closer to the City facility and some are based at the new plant. De-centralization could also result in staff redundancy - another added cost.

You also mentioned that the potential benefits of a plant at Hobbs Brook or Stony Brook Reservoirs are worth the delays associated with re-evaluating a site remote from the existing site. The cost associated with delay would be significant. The City has already invested considerable time and money in conceptual design and permitting (the MEPA process), as well as in public outreach. Furthermore, if construction of a new plant is delayed, interim improvements may be needed at the existing plant, which would also add to project costs.

In conclusion, we are confident that our siting decision reflects sound engineering, environmental, and economic judgement and careful consideration of all relevant issues. We appreciate your continued interest in the project and thank you for your suggestions.

Very truly yours



Robert W. Healy
City Manager

RWH/dls
cc: Michael Nicoloro
Joseph J. Harrington, PhD, P.E.
John Kissida, Camp, Dresser, McKee



EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

CITY OF CAMBRIDGE
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TEL. 349-4300
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April 22, 1996

To The Honorable, The City Council:

With reference to Awaiting Report Item No. 23, regarding Paul Feloney's letter on the water treatment plant, and an additional letter from Mr. Feloney and Mr. Moot on the water treatment plant, please find attached responses to both communications from City Manager, Robert W. Healy.

Very truly yours,

Robert W. Healy
City Manager

RWH/dls
attachment

Consent Agenda #18

5-206

Relative to Awaiting Report Item
Number Twenty-three regarding
Paul Feloney's letter on the
water treatment plant, and an
additional letter from Mr.
Feloney & Mr. Moot on the
water treatment plant.

In City Council April 22, 1996

Placed on file.